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Annotated Inventory of Educational and Labour Market Data Sources and Research

prepared for
Alberta Advanced Education and Career Development
and
Alberta Education

by S. Bellan, H. Krahn and G.S. Lowe

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Preface

The purpose of this annotated inventory is to provide a handy reference for policy-specialists and researchers in the Alberta government and the educational sector interested in data and research on secondary and post-secondary educational trends and outcomes.

The inventory was motivated by a recognition that in the past 10 years considerable research has been conducted nationally, provincially and locally on what broadly can be called "educational outcomes." As policy and program planning and decision-making increasingly depends on this kind of empirical research, it is essential that the Alberta government keep track of which topics have been studied, how and by whom. This information will make it easier for analysts to access relevant data, or reports based on these data sets, in a timely fashion. By disseminating existing knowledge, the inventory will also contribute to a more efficient use of future research resources.

In short, as the volume of empirical information escalates, we need some convenient way of indexing and accessing it. The inventory is designed to meet this need. It should be viewed as "a living document", because future research on educational and labour market issues relevant to secondary and post-secondary policy and program planning can be easily incorporated into revised editions.

We have tried to anticipate the possible uses for the inventory. Each entry is organized to assist users to quickly identify the following key characteristics of the study: its purpose; who sponsored it; who was surveyed; when it was conducted; the major demographic measures included; key educational and labour market measures; highlights of findings; and major references of where Alberta analyses of the data are reported. In most instances, we have included study highlights in an Appendix, essentially reproducing the executive summary from relevant reports. Readers interested in further details on any of these topics are encouraged to refer to the document listed under "Alberta Analysis", which lists the most recent comprehensive analysis available for the province.

The scope of the studies abstracted in the inventory vary from national to provincial and institutional (local). The national studies included all permit provincial breakdowns, at least at the aggregate level, so that relevant Alberta trends can be identified or compared to other provinces.

It is important to note what is not included in the inventory. Various studies of education and labour markets conducted in other provinces, or strictly at the national level are not included. Also excluded are studies commissioned by individual school boards and research conducted for graduate degree dissertations, because they tend to be very focused in scope or in the issues addressed. Finally the voluminous literature

discussing educational and labour market policies, much of it produced in the last decade by governments or think-tanks, has not been included, given that it does not report research per se.

While some of these documents may make selective use of the various data sets in the inventory, their main purpose is the development of policy recommendations. Examples of these reports include: Michael E. Porter and Monitor Company, *Canada at the Crossroads: The Reality of a New Competitive Environment* (Study prepared for the Business Council on National Issues and the Government of Canada, 1991); M. Bloom, *Reaching for Success: Business and Education Working Together* (Conference Board of Canada, 1990); *First National Conference on Business-Education Partnerships Conference Report* (Ottawa: 1990); Economic Council of Canada, *A Lot to Learn: Education and Training in Canada* (Ottawa: Minister of Supply and Services Canada, 1992); Canadian Labour Force Development Board, *Putting the Pieces Together: Toward a Coherent Transition System for Canada's Labour Force* (Ottawa: Canadian Labour Force Development Board, 1994); and Government of Canada, *Learning Well Living Well* (Ottawa: 1991).

The inventory is organized into 8 sections. Section 1 includes surveys of high school drop-outs and high school graduates. Section 2 incorporates various studies of post-secondary graduates that focus mainly on labour market outcomes. Section 3 covers student satisfaction surveys, such as the exit surveys universities have recently begun conducting of their graduates. Section 4 documents surveys of adult education, training and apprenticeships. Section 5 deals with literacy studies. Section 6 summarizes transition studies, which tend to address a broader set of issues than other graduate surveys and, moreover, focus on the process of school-work transition. Section 7 itemizes various other Statistics Canada data sources, not included in previous sections, on work and education relevant to the province of Alberta. Section 8 presents overviews of 5 educational compendia -- documents that assemble trend and outcome data from a variety of sources (many of which we cover in earlier sections).

There are 2 Appendices, one presenting selected references that analyze and report data from the studies we have catalogued, the other containing executive summaries, where available.

Table of Contents

- 1.0 Surveys of those with High School Education or Less
 - 1.1 School Leavers Survey
 - 1.2 High School Graduate Survey
 - 1.3 Perceptions of Work and Further Education
 - 1.4 Tracking the Trends 1994
- 2.0 Post-Secondary Graduate Surveys
 - 2.1 National Graduate Survey
 - 2.2 Provincial Survey of College and Technical Institute Graduates
 - 2.3 University of Alberta 5-Year Follow-up Survey of 1990 Graduates
 - 2.4 Survey of Recent Graduates of Faculties of Education
 - 2.5 Public College and Technical Institute Surveys
- 3.0 Satisfaction Surveys
 - 3.1 University Exit Surveys
 - 3.2 Environics West Satisfaction Survey
- 4.0 Adult Education, Training and Apprenticeship Surveys
 - 4.1 National Apprenticed Trades Survey
 - 4.2 Adult Education and Training Survey
 - 4.3 Apprenticeship Long Range Follow-up Case Study
 - 4.4 Entry into the Trades Survey
- 5.0 Literacy Surveys
 - 5.1 Literacy Skills Used in Daily Activities
 - 5.2 International Adult Literacy Survey
- 6.0 Transition Studies
 - 6.1 National Longitudinal Survey of Children
 - 6.2 Alberta-Wide Survey of 1996 High School Graduates
 - 6.3 The School-to-Work Transition in Edmonton
- 7.0 Other Statistics Canada Data Sources on Education and Work
 - 7.1 Labour Force Survey
 - 7.2 Labour Market Activity Survey
 - 7.3 Census of Population
 - 7.4 General Social Survey on Work and Education
 - 7.5 Survey of Labour and Income Dynamics

8.0 Educational Compendia

8.1 Education in Canada

8.2 Alberta Children and Youth: Trends and Issues

8.3 Tracking the Trends

8.4 Guide to Data on Elementary and Secondary Education in Canada

Appendix A - Select References

Appendix B - Executive Summaries/Tables of Contents

Section 1.0

Surveys of Those With High School Education or Less

1.1 School Leavers Survey

Purpose:	To gain some insights into the numbers and characteristics of young people who were leaving school early, their reasons for leaving, and their experiences in the work force. The survey also allows for comparative analysis of early school leavers and high school graduates, especially with respect to their labour market outcomes and occupational aspirations.
Sponsor:	Employment and Immigration Canada (conducted by Statistics Canada)
Who was surveyed:	18 - 20 year olds across Canada. Sample size of 2,000 in Alberta. Stratified random sampling.
When conducted:	<ul style="list-style-type: none">• 1995 (follow-up of 1991 sample) (data forthcoming)1991
Demographic measures:	age, sex, marital status, family relationships, immigrant status
Key educational/labour market measures:	<ul style="list-style-type: none">• numbers of respondents leaving and returning to school• reasons for returning to school• characteristics of dropouts and graduates• reasons for leaving school• labour market experiences• education taken since leaving• educational and occupational aspirations
Highlights of findings:	See executive summary in Appendix B.
Alberta analysis:	Advanced Education and Career Development. (1993) <i>School Leavers Survey: Summary of Alberta Results</i> . Edmonton: Author.
Select related articles/reports:	See Appendix A.

1.2 High School Graduate Survey

Purpose:	To collect information on the post-secondary educational experiences, plans and career aspirations of high school graduates.
Sponsor:	Alberta Advanced Education (conducted by Alberta Advanced Education)
Who was surveyed:	High-school graduates in Alberta Sample size of 1,250 Stratified random sample
When conducted:	<ul style="list-style-type: none">• 1995 (data forthcoming)• 1988
Demographic measures:	age, sex, region (Calgary area, Edmonton area, other Alberta)
Key educational/labour market measures:	<ul style="list-style-type: none">• educational activities of graduates at time of survey• number who had repeated high school courses• number attending post-secondary institutions• number of institutions applied to• type of post-secondary institution attended• characteristics of those continuing on to post-secondary• sources of financing• reasons for not continuing education• career aspirations
Highlights of findings:	See executive summary in Appendix B.
Alberta analysis:	Alberta Advanced Education. (1989) <i>1988 High School Graduate Survey</i> . Edmonton: Author.
Select related reports/articles:	See Appendix A.

1.3 Perceptions of Work and Further Education

Purpose:	To find out how much high school students knew about the world of work and apprenticeship in order to determine how to provide better, more appealing information about apprenticeship opportunities.
Sponsor:	Alberta Advanced Education and Career Development (conducted by HLA Consultants)
Who was surveyed:	1,200 Edmonton high school students Non random quota sample
When conducted:	1995
Demographic measures:	age, sex
Key educational/labour market measures:	<ul style="list-style-type: none">• awareness of apprenticeship programs• percentage planning to pursue apprenticeship programs• percentage planning to attend post-secondary institutions• current occupations• occupational aspirations• jobs most frequently aspired to• factors affecting career choices
Highlights of findings:	See draft executive summary in Appendix B.
Alberta analysis:	Advanced Education and Career Development. (1995) <i>Perceptions of Work and Further Education by High School Students</i> (DRAFT) Edmonton: Author.
Select related articles/reports:	None.

1.4 Tracking the Trends 1994

Purpose:	To assess the concerns, interests and opinions of youth in order to determine significant trends likely to influence the need for human services in the coming decade.
Sponsor:	Community Trends Working Group/Social Planning Council (conducted by the same)
Who was surveyed:	Students in Edmonton and surrounding communities All 3,332 questionnaires contained closed-ended questions; 792 of these questionnaires contained open-ended questions non-random sampling Also results from 25 focus groups with Edmonton area youth
When conducted:	1994
Demographic measures:	age, sex, country of birth, parents' place of birth, educational attainment, living arrangements, region (town/city/county)
Key educational/labour market measures:	<ul style="list-style-type: none">• perceptions of major issues facing youth• views on the most positive part of schooling• suggestions on how school could be made more relevant• percentage of youth who felt safe at school• uses of money from after school jobs
Highlights of findings:	See highlights in Appendix B.
Comprehensive analysis:	Community Trends Working Group. (1994) <i>Tracking the Trends: Future Directions for Human Services in Edmonton and the Surrounding Region</i> . Edmonton: Author.
Select related articles/reports:	None.

2.0

Post-Secondary Graduate Surveys

2.1 National Graduate Survey

Purpose:	To examine the school-to-work transitions of recent post-secondary graduates (at 2 and 5 years after graduation).
Sponsor:	Employment and Immigration Canada (conducted by Statistics Canada)
Who was surveyed:	<p>Graduates from Canadian post-secondary institutions living in Canada at the time of the survey.¹</p> <p>Sample size of 8,224 in Alberta in the 1988 survey (the most recent survey with Alberta analyses).</p> <p>Stratified random sampling</p>
When conducted:	<ul style="list-style-type: none">• 1995 and 1992 (of 1990 graduates) (data forthcoming for 1995 survey, Alberta analysis underway for 1992 survey)• 1991 and 1988 (of 1986 graduates)• 1987 and 1984 (of 1982 graduates)
Demographic measures:	age, sex, marital status, family relationships
Key educational/labour market measures:	<ul style="list-style-type: none">• labour market experiences• job and salary satisfaction• relatedness of job to degree/diploma/certificate• level of education relative to level required in job• satisfaction with program of studies• education taken since graduation
Highlights of findings:	See executive summary in Appendix B.
Alberta analyses:	<p>Alberta Career Development and Employment. (1991) <i>Summary of Alberta Results from the 1988 Survey of 1986 Graduates</i>. Edmonton: Author.</p> <p>Alberta Advanced Education. (1990) <i>Survey of 1986 Graduates: Alberta University and College Highlights</i>. Edmonton: Author.</p>
Select related articles/reports:	See Appendix A.

¹ The survey excludes graduates from: private institutions, vocational programs lasting less than 3 months or in areas other than skilled trades, and apprenticeship programs.

2.2 Provincial Survey of College and Technical Institute Graduates

Purpose:	To examine the transition of recent Alberta college and technical institute graduates into the work force.
Sponsor:	Alberta Career Development and Employment (conducted by HLA Consultants)
Who was surveyed:	Graduating classes from the province's public colleges and technical institutes. 8,101 surveyed in 1987; 6,337 surveyed in 1991 Non random quota sample
When conducted:	<ul style="list-style-type: none">• 1991 and 1987 (of the 1985/86 graduating class)• 1986 (of the 1984/85 graduating class)
Demographic measures:	age, sex
Key educational/labour market measures:	<ul style="list-style-type: none">• field of study graduated from• labour market experiences• earnings• relatedness of employment to 1985/86 program• further education taken since graduation• assessment of 1985/86 program• formal and informal training on-the-job training received
Highlights of findings:	See executive summary in Appendix B.
Alberta analysis:	Advanced Education and Career Development. (1992) <i>1991 Graduate Employment and Education Follow-up Survey: Alberta Colleges and Technical Institutes</i> . Edmonton: Author.
Selected related reports/articles:	See Appendix A.

2.3 U of A 5-Year Follow-up Survey of 1990 Graduates

Purpose:	To collect data from University of Alberta graduates five years after they graduated (in 1990) regarding their post-graduation employment experiences and success.
Sponsor:	University of Alberta Career and Placement Services (CAPS) (conducted by the Population Research Laboratory)
Who was surveyed:	1990 University of Alberta Graduates Sample size of 2,116
When conducted:	1996
Demographic measures:	age, sex, visible minority status, aboriginal status
Key educational/labour market measures:	<ul style="list-style-type: none">• type of program completed in 1990• employment status six months, three years and five years after graduation• full-time/part-time employment• permanent/temporary employment• occupation and industry• salary• match between education and job• job-search techniques
Highlights of findings:	See executive summary in Appendix B.
Alberta analysis:	Murphy, Jonathan and Coffin, Wendy L. (1996) <i>Survey of University of Alberta Graduates of 1990. Part 1 - Findings</i> . Edmonton: University of Alberta, Student Services.
Select related articles/reports:	See Appendix A.

2.4 Survey of Recent Graduates of Faculties of Education

Purpose:	To determine the employment status and career plans of the 1990-1991 cohort of graduates from the faculties of Education of the province of Alberta.
Sponsor:	Alberta Education and the Alberta Teachers' Association (conducted by A.L. Boberg, L. Bosetti and R. O'Reilly, University of Calgary)
Who was surveyed:	1990/91 education graduates from Alberta universities Sample size of 618 Stratified random sampling 32 in-depth interviews of respondents not teaching full-time
When conducted:	1991
Demographic measures:	age, sex, marital status, number of children, parents' occupation and educational attainment, region (rural/urban)
Key educational/labour market measures:	<ul style="list-style-type: none">• reasons for pursuing an education degree• employment in the teaching profession• full-time/part-time employment• reasons for not teaching• future plans in teaching• job search strategies
Highlights of findings:	See attached abstract in Appendix B.
Alberta analysis:	Boberg et al. (1991) <i>A Survey of Recent Graduates of Faculties of Education</i> . Calgary: Author.
Select related articles/reports:	None.

2.5 Public Colleges and Technical Institute Surveys

Purpose:	To determine the success of recent graduates in finding training-related employment.
Sponsor:	Conducted by most of the public colleges and both technical institutes.
Who was surveyed:	Graduating classes. Attempted census of the population.
When conducted:	Annually.
Demographic measures:	age, sex
Key educational/labour market measures:	<ul style="list-style-type: none"> • employment status (employed/unemployed/not in labour force) • full-time/part-time • relatedness of first job to training • names and locations of employers (of graduates in training-related employment) • monthly salaries • educational activity at time of the survey
Highlights of findings:	See executive summary from the Northern Alberta Institute of Technology 1995 survey in Appendix B.
Alberta analysis:	Northern Alberta Institute of Technology (1996) <i>1996 Graduate Profiles and 1995 Placement Survey</i> . Edmonton: Author. (Publications from most of the colleges and technical institutes are available in the Alberta Advanced Education and Career Development library).
Select related reports/articles:	None.

Section 3.0

Satisfaction Surveys

3.1 University of Alberta Graduated Surveys

Purpose:	To collect data from graduates (of undergraduate programs) regarding their evaluations of university programs and services, teaching and learning, skill acquisition, and overall satisfaction with the university experience.
Sponsor:	Vice-President (Academic), University of Alberta (conducted by the Population Research Lab)
Who was surveyed:	All University of Alberta graduates (of undergraduate programs) receiving degrees at June Convocation. Similar "exit surveys" are conducted by the University of Calgary and the University of Lethbridge. Beginning in 1996, a province-wide "exit survey" of graduates of all four universities (Alberta, Athabasca, Calgary, Lethbridge) will be conducted every second year, as part of the provincial government's Key Performance Indicators initiative
When conducted:	<ul style="list-style-type: none">• 1992, 1993, 1994, 1995
Demographic measures:	age, sex, marital status, number of dependents, visible minority status, immigrant status, aboriginal status
Key educational/labour market measures:	<ul style="list-style-type: none">• reasons for attending university• evaluations of university programs and services• evaluations of teaching and learning• self-reported skill acquisition (including labour market related skills),• overall satisfaction with the university experience• job arranged at time of graduation• education-related debt
Highlights of findings:	See executive summary of 1995 survey in Appendix B.
Alberta analysis:	University of Alberta (1995) <i>Undergraduate Experiences at the University of Alberta: Results from the 1995 University of Alberta Graduated Survey</i> . Edmonton: Population Research Laboratory, University of Alberta.
Select related articles/reports:	See Appendix A.

3.2 Environics West Satisfaction Survey

Purpose:	To help measure satisfaction levels of various stakeholders with Alberta's education system.
Sponsor:	Alberta Education (conducted by Environics West Research)
Who was surveyed:	Parents, high-school students, the public, teachers, principals, post-secondary instructors, business/employers Sample size of 3,611 Stratified random sampling
When conducted:	1995
Demographic measures:	Not available.
Key educational/labour market measures:	<ul style="list-style-type: none"> • perceptions of students' preparedness for post-secondary education or the workplace • satisfaction with graduation requirements • assessment of learning standards • satisfaction with quality of education • satisfaction with opportunity for involvement in decision making • employer involvement in schools • assessment of teacher knowledge and skills • satisfaction with school and school system efficiency • satisfaction with education received • satisfaction with value received for money spent in school • satisfaction with school information • satisfaction with access to information
Highlights of findings:	See findings in Alberta Education. (1995) <i>Results Report on the Three-Year Business Plan for Education</i> . Edmonton: Author.
Alberta analysis:	Alberta Education. (1995) <i>Results Report on the Three-Year Business Plan for Education</i> . Edmonton: Author.
Select related reports/articles:	None.

THE HISTORY OF THE CITY OF BOSTON

FROM THE FIRST SETTLEMENT
TO THE PRESENT TIME
BY
JOSEPH NEALE
OF THE BOSTON BAR
IN TWO VOLUMES
VOL. I.
BOSTON: PUBLISHED BY
J. NEALE, AT THE SIGN OF THE
"CROWN AND ANCHOR,"
CORNER OF NASSAU AND
NORTH STREETS.
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Section 4.0

Adult Education, Training and Apprenticeship Surveys

4.1 National Apprenticeship Survey/ National Apprenticed Trades Survey

Purpose:	To gather information on the labour market experiences of those who had either completed or discontinued apprenticeship programs, especially with a view to determining the match between the apprenticeship trade and occupation held at the time of the survey.
Sponsor:	Employment and Immigration Canada (conducted by Statistics Canada)
Who was surveyed:	Canadians who had either completed or discontinued an apprenticeship program 2 or 3 years before the survey. Stratified random sample
When conducted:	<ul style="list-style-type: none"> • 1994 (replaced National Apprenticeship Survey) • 1989
Demographic measures:	age, sex, educational attainment prior to registration, parents' occupations
Key educational/labour market measures:	<ul style="list-style-type: none"> • qualifications obtained • length of program • job opportunities for apprenticeship • credit for prior work and education • evaluation of on-the-job and in-class training • education-job match • earnings
Highlights of findings:	See executive summary of Canadian findings in Appendix B.
Alberta analysis:	None.
Select related articles/reports:	See Appendix A.

4.2 Adult Education and Training Survey

Purpose:	To measure the participation of adults in education and training and to develop a profile of these individuals.
Sponsor:	Employment and Immigration Canada (conducted by Statistics Canada)
Who was surveyed:	Canadians 17 years of age or over. Sample size of 4,160 in Alberta in the 1992 survey (the most recent survey with Alberta analysis). Stratified, multi-stage probability sampling design
When conducted:	<ul style="list-style-type: none">• 1994• 1992• 1990
Demographic measures:	age, sex, marital status, educational attainment, community type (urban/rural), family relationships, household composition
Key educational/labour market measures:	<ul style="list-style-type: none">• participation in programs, courses and on-the-job training• types of programs and courses taken• length of programs and courses• employment status• income• barriers to training• who received employer-sponsored training• who paid for training• content and location of training
Highlights of findings:	See executive summary in Appendix B.
Alberta analysis:	Canadian Association for Adult Education. (1994) <i>Adult Education and Training in Alberta: Analysis of Alberta Data from the 1992 Statistics Canada Adult Education and Training Survey</i> . Toronto: Author.
Selected related reports/articles:	See Appendix A.

4.3 Apprenticeship Long Range Follow-up Case Study

Purpose:	To evaluate the long-term benefits of apprenticeship training by examining graduates' labour market experiences and satisfaction with their training, either 5, 10 or 15 years after graduation.
Sponsor:	Alberta Advanced Education and Career Development (conducted by HLA Consultants)
Who was surveyed:	Alberta apprenticeship program graduates from the years 1976, 1981 and 1986. Sample size of 409 Criterion-based "random" sampling
When conducted:	1992
Demographic measures:	age, sex, household composition, residence location (name of town, city, etc.), parents' occupation,
Key educational/labour market measures:	<ul style="list-style-type: none">• length of time in the trade• satisfaction with the trade• reasons for leaving the trade• occupation• industry• number of employers since graduation• employer size for those still working in the trade• employment status (self-employed/paid employee)• income• education and further training
Highlights of findings:	See executive summary in Appendix B.
Alberta analysis:	Advanced Education and Career Development. (1993) <i>Apprenticeship Long Range Follow-up Case Study.</i> Edmonton: Author.
Select related articles/reports:	None.

4.4 Entry into the Trades Survey

Purpose:	To identify the factors which affect decisions regarding entry into apprenticeship training and to assist in the planning of future initiatives in apprenticeship training and trade certification.
Sponsor:	Alberta Career Development and Employment (conducted by HLA Consultants)
Who was surveyed:	3,150 apprentices and 1, 417 journeymen across Alberta Non random quota sample
When conducted:	1991
Demographic measures:	age, sex, educational attainment, geographic distribution, number of dependents per respondent household
Key educational/labour market measures:	<ul style="list-style-type: none">• employment status at time of entry into program• factors influencing decisions to enter the trades• perceived benefits of apprenticeship training• satisfaction with trade• employment during apprenticing• expectations of future work
Highlights of findings:	See executive summary in Appendix B.
Alberta analysis:	HLA Consultants. (1993) <i>Entry into the Trades: Alberta Apprentices and Journeymen</i> . Edmonton: Author.
Other analyses:	None.

Section 5.0

Literacy Surveys

5.1 Literacy Skills Used in Daily Activities

Purpose:	To develop a detailed literacy profile of Canadians 16 - 69 years.
Sponsor:	National Literacy Secretariat of the Department of the Secretary of State (conducted by Statistics Canada)
Who was surveyed:	Canadians 16 - 69 years of age Sample size of 1,248 in Alberta Stratified, multi-stage probability sampling design
When conducted:	1989
Demographic measures:	age, sex, marital status, educational attainment, health/disability status, family relationships, size of area of residence, immigration status
Key educational/labour market measures:	<ul style="list-style-type: none">• reading level• numeracy level• literacy level• reading and writing requirements of employment• self assessment of literacy skills• labour market experiences• income
Highlights of findings:	See executive summary in Appendix B.
Alberta analysis:	Alberta Advanced Education. (1991) <i>Survey of Literacy Skills Used in Daily Activities: A Report on the Literacy Skills of Albertans</i> . Edmonton: Author.
Select related articles/reports:	See Appendix A.

5.2 International Adult Literacy Survey (IALS)

Purpose:	To measure literacy across language and culture by conducting parallel national studies in 7 countries: Canada, the United States, Germany, the Netherlands, Poland, Switzerland and Sweden. In addition to comparing literacy skills across different countries, languages and cultures, the IALS permits comparisons of literacy performance between people with a wide range of abilities.
Sponsor:	Human Resource Development Canada and the National Literacy Secretariat (conducted by Statistics Canada)
Who was surveyed:	<p>Persons aged 16 and over living in the 10 provinces, except residents of institutions, persons living on Indian reserves and members of the armed forces.</p> <p>A sub sample of the Labour Force Survey.</p> <p>Sample size of 430 in Alberta.</p>
When conducted:	1994
Demographic measures:	age, sex, marital status, among others.
Key educational/labour market measures:	<ul style="list-style-type: none">• prose literacy• document literacy• quantitative literacy• educational attainment• current employment status
Highlights of findings:	See highlights from the Canadian report in Appendix B.
Alberta analysis:	To be completed.
Select related reports/articles:	See Appendix A.

Section 6.0

Transition Studies

6.1 National Longitudinal Survey of Children

Purpose:	The primary objective is to develop a national database on the characteristics and life experiences of Canadian children as they grow from infancy to adulthood. In the first cycle (1994/95), the focus was on young children -- from newborn to 11 years of age.
Sponsor:	Health and Welfare Canada (conducted by Statistics Canada)
Who was surveyed:	<p>Canadian children from the ages of 0 - 11 years of age. Information about these children (from the child's primary caregiver (usually the mother), the child's teacher and principal, and direct assessment of math and vocabulary skills) is added to each record.</p> <p>Sample size of 2,350 in Alberta</p> <p>Complex sampling design intended to construct a synthetic cohort database</p>
When conducted:	1994/1995, first cycle (data forthcoming)
Demographic measures:	age, sex, immigration status, family history and realtionships, health status, speech, motor skills, temperament, injuries, temperament, activities,behaviour
Key educational/labour market measures:	<ul style="list-style-type: none"> • educational history (collected from parent/caregiver on children aged 4 - 11). • exposure to reading/writing (collected from parent/caregiver). • social skills • Peabody Picture Vocabulary Test (for pre-schoolers) • Mathematics Computation Test (for children over grade 1) • academic achievement (from teachers/principals) • behaviour in the classroom (from teachers/principals) • perceptions how students get along at school, and with friends and family (questionnaire for 10-11 year olds).
Highlights of findings:	Not applicable.
Alberta analysis:	Not applicable.
Select related reports/articles:	Not applicable.

6.2 Alberta-Wide Survey of 1996 High School Graduates

Purpose:	To collect data on the educational and work experiences, educational and occupational aspirations, and education, work and social values of 12th graders across the province; to provide cohort comparisons for Edmonton by including questions asked in the baseline (1985) survey of School-to-Work Transition in Edmonton (see Study 6.3).
Sponsor:	Alberta Advanced Education and Career Development and Alberta Education (conducted by the Population Research Lab)
Who will be surveyed:	Approximately 2,700 12th graders in 58 schools of varying sizes and different-sized communities across the province.
When conducted:	<ul style="list-style-type: none">• 1996 (study designed to allow a future follow-up survey)
Demographic measures:	age, sex, marital status, race/ethnicity, community or residence, length of residence in Alberta, immigrant status, family socioeconomic background
Key educational/labour market measures:	<ul style="list-style-type: none">• high-school grades• occupational aspirations• plans for further education• work experience
Highlights of findings:	Not applicable.
Alberta analysis:	To be completed in 1996.
Select related reports/articles:	See Appendix A.

6.3 The School-to-Work Transition in Edmonton

Purpose:	To track high-school and university graduates as they make their way out of the formal education system and into the labour force; to examine the relationship between school-work transitions and other transitions into adult roles; to observe the impacts of successful or unsuccessful transitions on behaviours and attitudes.
Sponsor:	Alberta Advanced Education and Career Development, Alberta Education, Social Sciences and Humanities Research Council of Canada, and other organizations. (conducted by the Population Research Lab)
Who was surveyed:	This longitudinal study began by surveying 983 Edmonton high-school graduates (from six high schools in the public school system) and 589 University of Alberta graduates. Seven years later, 503 of the original high-school graduates and 391 of the original university graduates were still in the study.
When conducted:	<ul style="list-style-type: none">• 1985, 1986, 1987, 1989 and 1992 (of 1985 graduates)
Demographic measures:	age, sex, marital and parenthood status, race/ethnicity, immigrant status, family socioeconomic background, among others.
Key educational/labour market measures:	<ul style="list-style-type: none">• educational and occupational aspirations and attainment• reasons for and evaluations of educational choice• income• non-standard work• educational level relative to level required in job• pay and benefits• job satisfaction
Highlights of findings:	See executive summary in Appendix B.
Alberta analysis:	Krahn, Harvey and G.S. Lowe. (1993) <i>The School-to-Work Transition in Edmonton</i> . Edmonton: Population Research Laboratory, University of Alberta.
Select related articles/reports:	See Appendix A.

Section 7.0

Other Statistics Canada Data Sources on Education and Work

7.1 Labour Force Survey

Purpose:	To collect data on the labour market activities and demographic characteristics of the working-age population of Canada.
Sponsor:	Conducted by Statistics Canada.
Who is surveyed:	<p>The population aged 15 and over residing in Canada, except residents of the Northwest Territories, persons living on Indian reserves, inmates of institutions and full-time members of the Armed Forces.</p> <p>Sample size of 58,000 households or 107,000 individuals in Canada</p>
When conducted:	monthly
Demographic measures:	age, sex, education, marital status, family relationships, household composition
Key educational/labour market measures:	<ul style="list-style-type: none">• school attendance• labour force status• full- and part-time employment• multiple job holders• permanent and temporary employment• occupation• industry• earnings (to be added in 1997)• union membership (to be added in 1997)• duration of unemployment
Highlights of findings:	Not applicable.
Alberta analysis:	Not applicable.
Select related articles/reports:	See Appendix A.

7.2 Labour Market Activity Survey

Purpose:	To capture the extent of the fluidity and change that takes place in the labour market and to identify inefficiencies in the labour market.
Sponsor:	Conducted by Statistics Canada
Who was surveyed:	<p>People aged 16 to 69 residing in Canada except residents of the Yukon and Northwest Territories, persons living on Indian Reserves, institutional residents and full-time members of the armed forces.</p> <p>A sub-sample of the Labour Force Survey.</p>
When conducted:	<ul style="list-style-type: none">• Two longitudinal files for 1986/87 and 1988/1989/1990
Demographic measures:	age, sex, marital status, education, family relationships and household composition
Key educational/labour market measures:	<ul style="list-style-type: none">• labour market participation• usual work schedule• changes in wage or salary• reasons for job loss or work interruptions• duration of spells of employment and unemployment• reliance on social assistance and unemployment insurance
Highlights of findings:	See executive summary in Appendix B.
Alberta analysis:	Shillington, R. and D. Ross (1991) <i>Transition in the Alberta Labour Market: Statistics Canada Labour Market Activity Survey Covering 1986 and 1987</i> . Ottawa: Author.
Select related articles/ reports:	See Appendix A.

7.3 Census of Population

Purpose:	To provide demographic, social, economic and cultural information on the Canadian population.
Sponsor:	Conducted by Statistics Canada
Who is surveyed:	<p>All Canadian citizens and landed immigrants. Refugee claimants and persons in Canada on student visas or work permits were also enumerated in 1991.</p> <p>Labour market and income data are collected from a 20% sample of the population aged 15 and over excluding institutional residents.</p>
When conducted:	Every five years (labour market and income data are collected every ten years, as in the 1991 census, and occasionally collected in the five-year census, as in 1996).
Demographic measures:	age, sex, marital status, household relationship, ethnic and cultural origin, mother tongue, language spoken at home, knowledge of official languages, place of birth, citizenship, period or year of immigration and disability.
Key educational/labour market measures:	<ul style="list-style-type: none"> • educational attainment and major field of study • current educational activities • occupation • industry • class of worker (paid/self-employed/unpaid family worker) • labour market activities in week preceding Census • actual hours worked in week preceding Census • employment income
Highlights of findings:	Not applicable.
Alberta analysis:	Not applicable.
Select related reports/articles:	See Appendix B.

7.4 General Social Survey on Work and Education (GSS)

Purpose:	To monitor the evolution of major social phenomenon in Canada and to measure changes in Canadian's demographics, social characteristics and living conditions. The survey is conducted annually, and every 5 years the core content examines the topics of education, work and retirement.
Sponsor:	Conducted by Statistics Canada
Who was surveyed:	All persons aged 15 and over living in the 10 provinces, except persons residing full-time in institutions. Sample size of 9,338 Canadians in 1989, and 11,500 in 1994. Random sampling
When conducted:	Annually (However, only cycles 4 and 9 focus on education and work issues) <ul style="list-style-type: none"> • 1994 (cycle 9) • 1989 (cycle 4)
Demographic measures:	age, sex, education, marital status, household composition, immigration status, mother tongue, religion, health
Key educational/labour market measures:	<ul style="list-style-type: none"> • educational attainment and intentions • field of study • transitions from education to work • occupational history • job satisfaction and working conditions • work interruptions • job relevance of education • computer literacy and use • annual income of respondent and household
Highlights of findings:	None available for Alberta.
Alberta analysis:	None.
Select related reports/articles:	See Appendix A.

7.5 Survey of Labour and Income Dynamics

Purpose:	To map out patterns of labour market activity and changes in income, and to record the events that trigger these changes.
Sponsor:	Conducted by Statistics Canada
Who was surveyed:	<p>People aged 16 to 69 residing in Canada except residents of the Yukon and Northwest Territories, persons living on Indian Reserves, institutional residents and full-time members of the armed forces.</p> <p>Sample size of the first panel was 15,000 Canadian households, including about 31,000 adults.</p> <p>Longitudinal survey. First panel drawn from the Labour Force Survey, and once selected retained for six years.</p>
When conducted:	<ul style="list-style-type: none">• First panel started in 1993. Second panel will start in 1996. Respondents are interviewed twice a year.
Demographic measures:	age, sex, marital status, education, ethnic background, family relationships and household composition, geographic region
Key educational/labour market measures:	<ul style="list-style-type: none">• educational attainment and activity• work experience• occupation and industry• earnings and personal income• type of employment (full-time/part-time)• multiple job holding spells• spells of unemployment• receipt of unemployment insurance, social assistance and workers' compensation
Highlights of findings:	Not applicable.
Alberta analysis:	None planned.
Select related articles/ reports:	See Appendix A.

Section 8.0

Educational Compendia

8.1 Education in Canada

Purpose:	To present a comprehensive overview of the key variables in Canadian education. It also serves as a complement to <i>Education Quarterly Review</i> (Catalogue no. 81-003) which analyzes and reports on current issues and trends in education using information from a variety of statistical sources.
Compiled by:	Statistics Canada
Major Data Sources:	Census of population, the Labour Force Survey, schools and institutions across the country.
When published:	Annually (most recent document 1992/93)
Key topics addressed:	<ul style="list-style-type: none">• educational institutions• enrolment• graduates• teachers• education finance• educational attainment
Publication highlights:	See Highlights from 1992/93 document in Appendix B.

8.2 Facts and Figures

Purpose:	To provide a statistical overview of the basic education system in Alberta. The most recent edition describes: environmental conditions in which the education system operates; human and fiscal resources available to the education system; and the impact, or consequences, of schooling on students from diverse perspectives.
Compiled by:	Alberta Education
Major Data Sources:	Alberta Alcohol and Drug Abuse Commission, Alberta Attorney General, Alberta Education, Alberta School Boards Association, Alberta Advanced Education, among others.
When published:	<ul style="list-style-type: none">• 1988, 1989, 1991
Key topics addressed:	<ul style="list-style-type: none">• the context of education (demographics, economic climate, etc.)• educational inputs/resources (enrolment, teaching staff, etc.)• educational outcomes/results (student achievement, graduates, etc.)
Publication highlights:	See Highlights from 1991 document in Appendix B.

8.3 Alberta Children and Youth: Trends and Issues

Purpose:	To draw attention to societal trends and issues that may be relevant to educators in providing the best possible education to students.
Compiled by:	Alberta Education
Major Data Sources:	Statistics Canada, Health and Activity Limitations Survey, Edmonton Social Planning Council, Alberta Health, Alberta Vital Statistics, among others.
When published:	<ul style="list-style-type: none">• 1995
Key topics addressed:	<ul style="list-style-type: none">• the demographic profile of children and youth (including data on youth mobility, fertility and mortality)• the families that children live in (including child care trends and "children at risk")• the values and attitudes of youth (including time use patterns, labour force participation and the transition to adulthood)
Publication highlights:	See Highlights from 1995 document in Appendix B.

8.4 Tracking the Trends 1994

Purpose:	To examine the major social and economic trends likely to influence human programs and services in the Edmonton area. The 1994 edition focuses on the trends and implications affecting youth.
Compiled by:	Edmonton Social Planning Council
Major Data Sources:	Census of population, the City of Edmonton, the Edmonton Board of Health, among others.
When published:	<ul style="list-style-type: none">• 1989, 1990, 1991, 1993, 1994, 1995 (each edition has a special focus)
Key topics addressed:	<ul style="list-style-type: none">• population• employment and income• poverty• youth and crime• education
Publication highlights:	See Table of Contents from 1994 publication in Appendix B.

8.5 Guide to Data on Elementary and Secondary Education in Canada

Purpose:	To provide business people, researchers, teachers and students with a tool to locate information on various aspects of the education field.
Compiled by:	Statistics Canada
Major Data Sources:	Statistics Canada surveys and data sets.
When published:	<ul style="list-style-type: none">• 1995 <p>The guide is the first in a series that will cover the full spectrum of education in Canada.</p>
Key topics addressed:	<ul style="list-style-type: none">• context of education (demographics, etc.)• educational inputs and resources (enrolment, teachers, etc.)• educational outcomes• literacy levels• educational activities• relationship between educational attainment and labour market success
Publication highlights:	See Table of Contents from 1995 publication in Appendix B.

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Appendix B

Executive Summaries/Tables of Contents

Section 1.0

Surveys of Those With High School Education or Less

1.1 School Leavers Survey

Executive Summary

In response to increasing concern about the large numbers of youth who drop out of high school, Statistics Canada conducted the School Leavers Survey in April 1991. This survey contacted 18 to 20 year olds across the country in order to gain some insights into the number of students who were leaving school early, their reasons for leaving, and their experiences in the work force. This report analyzes the Alberta data from the School Leavers Survey and summarizes the key results.

- One of the major findings to emerge from this survey is that patterns of dropping out and completion are more complex than they used to be. To address this complexity, the survey provided several statistics that shed light on the dropout issue.
 - If students progress through the school system without interruptions, virtually all of them should complete high school by the time they are 18 years old. However, only 45 percent of 18 year olds had graduated by the time of the survey; nearly 40 percent of them were still working towards their high school diplomas. This is consistent with the trend of students taking an extra year to complete grade 12. However, far more older respondents had completed high school; 71 percent of 19 year olds and 81 percent of 20 year olds had graduated by the time of the survey.
 - Students who had dropped out of school tended to drop back in, demonstrating that, at these young ages, dropping out is not an end state but a process. Of the 19 percent of Albertans who had left school at some point, nearly half (47 percent) had returned. Moreover, Canadian data demonstrated that, of those who had returned, 20 percent had already graduated by the time of the survey.
 - Fourteen percent of 20 year olds were dropouts at the time of the survey. However, because so many dropouts return to school, this number is not likely to remain stable. Even so, this percentage sheds some light on the magnitude of the problem. Even if these 20 year olds return and subsequently graduate, they have prolonged their entry into the labour market as skilled workers.
- Dropouts themselves could not be stereotyped. Their ranks included poor students and excellent students, and those from single parent families and two-parent families. In spite of this, certain characteristics were better predictors of dropping out than others. The more of these characteristics respondents possessed, the more likely they were to have dropped out.
 - Compared to graduates, dropouts were far more likely to have come from non-two parent families. While the vast majority of graduates (83 percent) lived with both parents, only slightly more than half of dropouts did; the other half lived in single-

parent families, or in other non-traditional arrangements, including living alone and living with friends or relatives.

- Dropouts had far more academic difficulties than graduates. Over one-third of dropouts had failed a grade in elementary school compared to only 5 percent of graduates. Moreover, compared to graduates, dropouts experienced more trouble with high-school math, science and English. English was particularly problematic for dropouts. While only 2 percent of graduates had failed high-school English, nearly 20 percent of dropouts had done the same.
- In their last full year of school, most graduates (62 percent) received grades of A or B, while the vast majority of dropouts (81 percent) received grades of C, D or F. However, even though poor grades would serve as a clear warning signal, not all dropouts received poor grades. A disturbingly high proportion (19 percent) left even though they were doing very well in school.
- Although many dropouts (44 percent) did not enjoy school, they did not dislike all aspects of it. Nearly 90 percent stated that they got along with their teachers, and over 80 percent found them helpful. However, dropouts' comments about the courses in school were less positive; two-thirds thought their courses were useful, and only 56 percent found their classes interesting. In contrast, the vast majority of graduates found their courses useful and interesting (83 and 81 percent respectively).
- Dropouts were less likely to engage in the life of the school. While over three-quarters of graduates participated in extracurricular activities, only slightly more than half of dropouts did. In addition, compared to graduates, dropouts were more likely to skip school and less likely to participate in class.
- Working excessive hours while in school clearly contributed to dropping out. Nearly half of graduates worked less than 20 hours per week, while the vast majority of dropouts (81 percent) worked more than 20 hours per week. Notably, over one-third of dropouts worked the equivalent of a full-time job while in school (30 or more hours per week).
- Many dropouts avoided an obvious departure from school by leaving over the summer months. Nearly 40 percent left school in June, while the remainder of departures were spread throughout the school year.
- Few dropouts left school before the legal age of 16; only 14 percent of dropouts were 14 or 15 years of age. The vast majority (over 80 percent) of dropouts were 16, 17 or 18 years old at the time of leaving school. However, even the oldest dropouts (17 and 18 year olds) were only in grades 10 and 11 at the time they had left school. This means that they were older than their same grade classmates, possibly because they had failed one or more grades.

- Over 80 percent of dropouts had at least a grade 10 education; in fact a full 56 percent of dropouts had completed grade 11. Less than 20 percent of them had a grade 9 education or less. Notably, these Alberta dropouts were more highly educated than the average Canadian dropout. One-third of Canadian dropouts had a grade 9 education or less, and only 32 percent of them had completed grade 11.
- Dropouts' explanations for leaving fell into three categories: school-related reasons (43 percent), work-related reasons (30 percent), and personal reasons (13 percent).
 - Most dropouts (43 percent) left for school-related reasons. These reasons included having problems with school work, and less frequently having problems with teachers. However, the most frequently cited school-related reason was that dropouts were bored with or hated school. Importantly, this was among the most frequently given reasons by young men and women alike. While a small proportion of young women left because of pregnancy, this was the exception, not the rule.
 - Thirty percent of dropouts left in order to work, although the majority (72 percent) worked out of preference and not necessity. This was especially true for males; 38 percent of them compared to 17 percent of females left for work-related reasons. However, work-related reasons are not entirely separate from school-related reasons. Students who preferred working had to choose between two alternatives – to work or to stay in school. For them to have arrived at a decision to leave, the pull of the work place had to have been stronger than the pull of the school.
 - A small proportion of dropouts (13 percent) left school for personal reasons. Of young women who gave personal reasons for leaving school (20 percent), nearly half left because of pregnancy or marriage, and nearly as many left because of problems at home. Very few males left for personal reasons (6 percent), and those that did most frequently cited problems at home.
- Most dropouts (55 percent) regretted leaving school, stating that they could not find good jobs or had since come to realize the value of an education. An additional 20 percent had mixed feelings about their decision; only 25 percent of dropouts were glad they left. However, very recent dropouts were the most likely to have been satisfied with their decision to leave school; the longer dropouts had been out of school the more they regretted their decision.
- Compared to graduates, dropouts already fared worse in the labour market. They had more difficulty finding work and were more likely to be laid off from their jobs. Moreover, they had a greater reliance on social programs; of those not in school at the time of the survey, 20 percent of dropouts compared to 12 percent of graduates had received unemployment insurance in the year preceding the survey. More disturbingly, 15 percent of dropouts but only 5 percent of graduates had obtained social assistance.

- Although dropouts had more difficulty securing employment, those that did work held jobs similar to those of graduates. Nearly two-thirds of graduates and one-half of dropouts worked in clerical, sales and service occupations. Young women were especially concentrated in these jobs; over 75 percent of them, regardless of graduation status, were employed in these occupations. Notably, the jobs these people occupied at the time of the survey were not vastly different from the jobs they had worked in while in high school.
- Twenty-five percent of dropouts believed their basic math skills were limiting their job opportunities; nearly as many felt the same about their reading and writing skills (17 percent). Not only do these people lack high school diplomas, their basic skill deficiencies will relegate them to unskilled labour. Without further upgrading, these people face a dismal employment future.
- Dropouts appeared to be less able to cope with potential unemployment than graduates. Compared to graduates, dropouts were both less aware of and less likely to use programs and services available to those looking for work.
- Despite their occupational similarity at the time of the survey, graduates and dropouts were on different career paths. Over one-half of graduates were enrolled in post-secondary institutions at the time of the survey. Since most high-skill jobs require some form of post-secondary education, this means that many graduates will be employed in high-skill jobs, while most dropouts, even those who eventually graduate from high school, will be in the same medium- and low-skill jobs they were employed in at the time of the survey.
- Graduates and dropouts were clearly aware that different credentials likely translate into different jobs. When asked about the jobs they expected to have in five years, two-thirds of graduates saw themselves working in high-skill, white collar occupations such as Medicine & Health, Natural Sciences, Engineering & Math, and Teaching & Related. Conversely, less than one-third of dropouts envisioned themselves in high-skill occupations. Most expected to be in the same medium- and low-skill jobs that they held at the time of the survey.
- Despite their negative experiences in high school, dropouts had not rejected the concept of education. Some dropouts had already taken additional courses since they left school -- but not in the traditional high school setting. Most had accessed courses through correspondence programs or trade/vocational schools (53 percent). Moreover, the vast majority of dropouts (88 percent) were receptive to the idea of further education in the future.

1.2 High School Graduate Survey

EXECUTIVE SUMMARY

In December of 1988, Alberta Advanced Education conducted a survey of recent Alberta high school graduates in order to collect information on the post-secondary educational experiences, plans and career aspirations of high school graduates.

A stratified random sample of 1,250 graduates was selected from the population of 21,905 secondary students who received an Alberta high school diploma between September 1, 1987 and August 31, 1988. A total of 780 graduates responded to the survey. When we adjusted for graduates who could not be located, and for errors in our sample, the return rate was 65.1%.

The following are highlights of the survey results.

PART I - PARTICIPATION IN POST-SECONDARY EDUCATION

Well over half (57.9%) of the recent Alberta high school graduates surveyed had continued their education full-time in a post-secondary institution (page 6).

Another 4.0% of the graduates entered post-secondary institutions on a part-time basis and 10.4% had returned to high school (page 6).

Older high school graduates were less likely to continue their education full-time in post-secondary institutions than were graduates of average high school leaving age. However, this was true among matriculants only (page 8).

Educational plans in Grade 12 corresponded quite well to educational participation after high school. A full 80.6% of those who had planned to continue their education in Grade 12 were enrolled full-time in post-secondary institutions at the time of the survey (pages 10-11).

The higher the graduates rated their ability to achieve their education and career goals in comparison to that of their Grade 12 classmates, the more likely they were to continue their education full-time in post-secondary institutions (pages 11-12).

Over three-quarters (77.1%) of the matriculants entered post-secondary institutions on a full-time basis, as compared to 36.6% of the non-matriculants (page 13).

The higher the high school grades of the graduates, the more likely they were to enter post-secondary institutions on a full-time basis. The most dramatic increase in the percentage of graduates continuing their education occurred once grades reached 70% and over (page 13).

Among graduates who entered post-secondary institutions on a full-time basis, the top three factors selected as most important in the decision to continue their education were: "It is necessary in order to have the career I have chosen" (39.6%); "It would help my chances of finding a job" (23.2%); and, "I simply wanted more education" (13.4%) (page 15).

The large majority (78.3%) of those who didn't pursue post-secondary education on a full-time basis indicated that they did plan to do so at some point in the future. About two-thirds (64.8%) of this group thought that they would continue their education on a full-time basis within one year (page 18).

PART II - PROGRAMS AND INSTITUTIONS

Among the graduates who continued their education full-time in post-secondary institutions, 44.9% were attending universities, 39.3% were in colleges (including technical institutions), 7.2% were in other types of Alberta schools, and 8.6% were attending post-secondary institutions outside of the province (page 20).

Older graduates were less likely to be attending university than were graduates of average high school leaving age (pages 22-23).

Among those graduates who continued their education, the higher they rated their ability to achieve their education and career goals in comparison to that of their Grade 12 classmates, the more likely they were to be attending university (page 24).

Among those who entered post-secondary institutions on a full-time basis, those with Grade 12 grades of 70% or over were much more likely to be attending university than those with lower grades (page 26).

The top three factors selected by graduates as being the most important in their choice of post-secondary institution were: "The program I wanted was offered there" (26.5%); "It has a good reputation and/or facilities" (20.9%); and, "It was close to home" (20.6%) (pages 27-28).

The factors most commonly selected as being the most important in the choice of post-secondary program were "Personal interest" (45.8%) and "It prepares me for the career that I want" (22.9%) (page 29).

Over one-quarter (28.8%) of those who continued their education full-time in post-secondary institutions had applied to more than one Alberta institution, and 14.9% had applied to more than one program of study at the institution they are presently attending (pages 30-31, 34).

PART III - ACCESS TO POST-SECONDARY EDUCATION

Among those who did not continue their education full-time in a post-secondary institution, the top factors selected as being most important in the decision not to pursue their education were: "I needed a break from school" (18.4%); "I wanted to earn money" (15.9%); and "I needed to return to high school to improve my grades" (14.1%) (pages 37-38).

A wide range of information sources about post-secondary education was used by graduates, the most common being high school guidance counsellors, special events, and parents and family members. Although guidance counsellors were the most utilized source of information, the information they provided was often not useful or appropriate in the graduates' view (page 40).

Among those graduates who entered post-secondary institutions on a full-time basis, the most frequently used sources of financing were parents or family (71.2%) and savings and summer jobs (68.6%) (page 42).

Graduates from the Edmonton and Calgary areas were less likely to use student loans, government grants, bursaries, and allowances than graduates from other areas of Alberta. Conversely, they were more likely than graduates from other areas of Alberta to

have used income from part-time jobs to finance their post-secondary education (page 43).

Almost one-quarter (23.2%) of the graduates indicated that they had repeated one or more high school courses in order to improve their Grade 12 grades. Half (50.7%) said that they had taken additional high school courses over and above the requirements for their diploma (page 44).

The most common reason identified by graduates for both repeating courses and for taking additional high school courses was "To improve my chances of being accepted by a post-secondary institution" (pages 47, 49).

Family encouragement to enrol in higher education, the educational participation of older siblings, and parents' education were all positively related to the likelihood of graduates continuing their education full-time in a post-secondary institution. However, once graduates made the choice to enter higher education, family background had less of an influence on the type of institution graduates attended. Only parents' education played a significant role in the type of institution attended (pages 50-55).

Family background also had an indirect influence on the post-secondary educational participation of graduates through its positive influence on the likelihood of attaining matriculation status and high Grade 12 grades (pages 55-59).

As expected, those who graduated from areas other than Edmonton and Calgary were found to be less likely to have a post-secondary institution in the area of their parents' home than were graduates from Alberta's two largest centres. However, not having a post-secondary institution in the vicinity of one's parents home did not influence the likelihood of graduates continuing on with their education after high school (page 60).

PART IV - CAREER ASPIRATIONS

Only two-thirds (64.9%) of the graduates had specific career aspirations which could be coded into an occupational field. Another 11.4% had plans for the future, but they couldn't be coded into traditional occupational categories. The remaining

23.7% of graduates did not have any specific career aspirations (pages 62-63).

Females were more likely than males to be undecided about a future career, and those who did not continue their education full-time in a post-secondary institution were more likely to express career indecision than those who did (pages 64-65).

Among those graduates who had specific occupational aspirations, Managerial and administrative occupations were the most popular choice (17.0%). This was followed by occupations in medicine and health (14.8%) and occupations in the natural sciences, engineering, and mathematics (14.0%) (pages 66-67).

The percentages of graduates aspiring to various occupational fields differed by gender, and to a lesser degree by whether or not respondents continued their education full-time in a post-secondary institution (pages 66-67).

The career aspirations of graduates also differed from the actual distribution of occupations in the paid Canadian labour force (page 67).

1.3 Perceptions of Work and Further Education

Student Work Placement Project

PERCEPTIONS OF WORK AND FURTHER EDUCATION BY HIGH SCHOOL STUDENTS

Executive Summary

The Apprenticeship and Industry Training (AIT) Division surveyed 1200 high school students in July and August, 1995. The purpose of the study was to find out how much high school students knew about the world of work, apprenticeship, and their post secondary education plans. The findings will be used to provide better, more appealing, information about apprenticeship opportunities for high school students.

The AIT Division hired 8 high school students to survey their peers on their perceptions about work and further education. The high school students helped with the questionnaire design and some of the analysis as well. High school students were used to give them a different kind of work experience than they might otherwise have in "traditional" youth jobs. The project was made possible by the Student Work Placement program initiated by Alberta Advanced Education and Career Development.

High school youths participate in the labour force in large numbers. This is a fairly recent phenomenon. Before 1970 most jobs were full time. In 1969 youth (age 15-24) participation in the labour force was 49%. Today it is 66%. Youth jobs tend to be clustered in comparatively few occupations predominately in sales and service.

Current trends are towards employers demanding ever higher qualifications for entry to quality jobs. There is also a trend towards lower wages and fewer benefits for unskilled work. Youths are being told that they will need 18 years of education to get a good job.

Apprenticeship offers access to a post secondary qualification that can lead to high quality jobs with salaries comparable to those in the professions. Yet a number of studies, including this one, have shown that youths are not very interested in apprenticeship. Understanding how youths feel about apprenticeship about other occupations will result in better strategies to make apprenticeship more appealing.

The survey found;

- All but 11 of the 1200 students surveyed expect to go to some form of post secondary education. Most (69%) thought they would go to university, about 9% said they might go into apprenticeship.

- Most did not have negative perceptions about apprenticeship or the skilled trades, nevertheless, most were not very interested in or knew much about apprenticeship.
- Love of job, interesting work, money, self fulfillment and working with people were the top five reasons students gave for the career they said they wanted.
- The occupational areas they were the most interested in were health occupations, occupations in science, in the social sciences (includes government and religion) and occupations in art culture and sport. Very few indicated they were interested in trades and transport, primary or manufacturing and process industries.
- Schools and having a family in the occupation were the most given sources for making a career choice
- Sixty five percent surveyed said they wanted a job in the professions. The last census indicates that professions make up about 14% of the available jobs in Edmonton.
- Female respondents were not interested in apprenticeship. Males were more likely to be interested in apprenticeship.
- Female respondents were more likely to choose a profession than males. There was gender difference in career choice but young women were choosing occupations like doctor over nurse, police officer over teacher, psychologist over secretary. Only one young woman of the nearly 700 surveyed identified homemaker as her career choice.
- Despite the general lack of awareness about apprenticeship, the trade of non automotive mechanic (heavy duty and related) was identified as a career choice by nearly 2% of the boys, which made it one of the top 10 career choices for male respondents.
- Student job choices were not based on job availability, 7% of surveyed students want to be doctors, total *employment in all health occupations* is about 6% in Edmonton, yet most were optimistic about being able to get the career they wanted.

As a result of the survey, recommendations will be made to include job availability and popularity of choice in counseling information for high school students. By sharing this information with schools, hopefully schools will be encouraged to administer this survey or a similar survey to their own students and make the results available to their students.

Apprenticeship promotional material for high schools should focus on how tradespeople love their jobs, find their work interesting, earn good money, find self

fulfillment and work with people (where applicable). Information should also include the availability of work in the designated trades. Other industry sectors where students show little interest, such as Primary industries and Processing, Manufacturing and Utilities industries may want to consider similar strategies to increase their profiles in high school

Youth's position in the labour market gives few opportunities to experience work other than sales and service. Strategies to allow high school students hands on exposure to other work than in sales and service, in the tradition of RAP (Registered Apprenticeship Plan for high school) and the Student Work Placement project that resulted in this survey, will eventually give students in high school a more realistic and larger view of the world of work.

2.0

Post-Secondary Graduate Surveys

2.1 National Graduate Survey

Executive Summary

In May, 1988, Statistics Canada surveyed graduates from Canadian universities, colleges, and trade/vocational institutes in order to examine their labour-market experiences two years after graduation. This report summarizes the results from the Alberta graduates in this survey and compares these results to those obtained from this survey's predecessor - the National Graduates Survey.¹

The Alberta population of 1986 graduates was divided into four levels of certification: 1) Graduate (Masters Certificates, Masters Degrees and Doctorate Degrees); 2) Undergraduate (Bachelors and First Professional Degrees and Undergraduate Diplomas/Certificates); 3) College/Technical (graduates of programs one year or longer at colleges or technical institutes); 4) Trade/Vocational (graduates of skilled trades, (i.e. pre-employment programs), which normally are 3 months or more in duration).

1. The fields of study that individuals graduated from in 1986 had considerable impact on their labour-market outcomes. For example, at the Undergraduate Degree level, Engineering & Applied Science graduates fared well in the labour market; of all the fields of study at this certification level, they had the highest earnings and were most likely to be in permanent jobs related to their programs of study. In contrast, at the Graduate Degree level, Fine & Applied Arts graduates fared poorly in the labour market. They had the lowest earnings and were least likely to hold full-time, permanent jobs related to their programs of study.
2. For the most part, 1986 graduates, regardless of gender, shared similar labour-market experiences. Exceptions occurred in the areas of occupations, industries and earnings. Males and females were less likely to be employed in common occupations and industries at each successively lower level of certification; and males, at all levels of certification, earned more than females.
3. As in 1984, over 90 percent of graduates at all levels of certification participated in the labour force two years after graduation; and over 80 percent of graduates in the labour force were employed.
4. In both 1984 and 1988, the vast majority of graduates (over 90 percent), at all levels of certification, were paid workers.
5. In both 1984 and 1988, university graduates tended to be in professional occupations such as management and teaching, while College/Technical and Trade/Vocational graduates tended to be in supporting occupations such as clerical and service occupations. In addition, there was a tendency for graduates to be more dispersed across occupations and industries at each successively lower level of certification.

¹ The National Graduates Survey was a 1984 survey of 1982 graduates.

6. While approximately 90 percent of 1984 and 1988 graduates were able to find full-time employment, they were less successful at finding permanent work, especially at the Undergraduate Degree level.
7. Graduate Degree holders enjoyed a competitive edge over other graduates in both 1984 and 1988 due to the fact that many of them had obtained jobs prior to graduating.
8. In both 1984 and 1988, Graduate Degree holders had by far the highest earnings of all graduates, and graduates from each successively lower level of certification earned less money.
9. In both 1984 and 1988, the majority of graduates were satisfied or very satisfied with their jobs and salaries. However, the proportion satisfied with their salaries (over 70 percent) was smaller than the proportion satisfied with their jobs (over 80 percent).
10. In 1988, approximately 80 percent of graduates, from all levels of certification, held jobs that were directly or partly related to their programs of study. In contrast, in 1984, the proportions of graduates in related jobs decreased at each successively lower level of certification.
11. In both 1984 and 1988, many graduates were overqualified for their jobs. In particular, over half of Graduate Degree holders had more education than was required for their jobs.
12. In both 1984 and 1988, Graduate Degree and Trade/Vocational graduates had the lowest and highest unemployment rates respectively. An analysis of unemployment by various demographic characteristics revealed that the clearest predictors of unemployment were previous unemployment and field of study; graduates who were unemployed 6 or 18 months after graduation were also much more likely than graduates who were employed during these periods to be unemployed two years after graduation; and arts graduates (Arts, Humanities or Fine & Applied Arts) had high unemployment rates at all levels of certification.
13. As in 1984, Undergraduate Degree holders had little previous labour-market experience; over 60 percent had attended high school prior to starting the programs from which they graduated in 1986.

2.2 Provincial Survey of College and Technical Institute Graduates

Executive Summary

In February, 1991, the Department of Alberta Career Development and Employment commissioned a follow-up survey of the 1985/86 graduates from Alberta's colleges and technical institutes. This survey, the second in a longitudinal study of these graduates, updated and expanded on information obtained in an initial 1987 survey. Both surveys were designed to provide snapshots of graduates' labour market and educational experiences: the 1987 survey at approximately 6 months after graduation, and the 1991 survey at approximately five years after graduation.

This report summarizes the key results from the 1991 survey and compares them to the results from the 1987 survey. In so doing, it provides a comprehensive picture of the school-to-work transitions of these graduates.

1. Overall, graduates fared much better in the labour market in 1991 than in 1987. This progress was attributable to the improved economy and graduates' increased experience in the workforce.
2. Roughly nine out of ten graduates participated in the labour force in both 1987 and 1991. However, in 1991, the percentage of these labour force participants who were unemployed (4 percent) was substantially lower than the analogous 1987 percentage (13 percent).
3. In both 1987 and 1991, the vast majority of graduates were paid employees; only a small percentage of graduates were self employed. However, the proportion of self-employed graduates increased slightly between 1987 and 1991.
4. In 1991, most graduates (83 percent) were still working in jobs that were directly or somewhat related to the programs from which they graduated in 1985/86. This proportion was virtually identical to that found in the 1987 survey.
5. Graduates were highly successful at finding full-time employment in both survey years; roughly nine out of ten graduates were employed in full-time jobs in both 1987 and 1991. However, a smaller proportion (roughly three-quarters of graduates in both survey years) had found full-time, study-related work.
6. In 1987, graduates were far more successful in securing full-time work than they were in finding permanent work; 90 percent had obtained full-time employment while 80 percent had obtained permanent employment. However, by 1991, a full 94 percent of graduates were working in permanent jobs.

7. Graduates' earnings increased considerably between 1987 and 1991. At the time of the 1987 survey, the average monthly starting salary of graduates working full-time in study-related jobs was \$1,721.¹ By 1991, these earnings had increased 43 percent to \$2,473.
8. In both 1987 and 1991, nearly two-thirds of graduates were concentrated in just five occupational categories. These were: Clerical & Related, Natural Science/Engineering/Mathematics, Management & Administration, Medicine & Health and Service.
9. In both survey years, over three-quarters of graduates worked in service industries (Health and Social Service, Business Service, Retail Trade, etc.).²
10. Graduates' transitions into the labour market, especially in the later stages, were characterized by a good deal of stability. For example, on average they had held their February, 1991 jobs for over two and one-half years. However, in the four year period between the 1987 and 1991 surveys, roughly two-thirds of graduates had changed occupations and industries.
11. The vast majority of graduates (94 percent) were satisfied or very satisfied with their February, 1991 jobs. However, only slightly more than half of them were very satisfied with these jobs.
12. One in five graduates had garnered another diploma, certificate or degree since graduating from their programs in 1985/86. Roughly the same proportion were enrolled at a post-secondary institution at the time of the 1991 survey, the majority as part-time students.
13. Nearly two-thirds of graduates, if given another chance, would have taken the same program of studies they graduated from in 1985/86.
14. The majority of graduates had received some training in their work places. Over three-quarters of graduates had received some informal training (training provided under normal work conditions provided by an experienced worker or supervisor) in their February, 1991 jobs.
15. Roughly four out of ten graduates had received formal training. Formal training was defined as training provided by an instructor, computer or manual that had an identifiable structured plan designed to develop a worker's skills. Those who had received this type of training most commonly received computer training or training that upgraded the knowledge of their specific fields.

1 This figure of \$1,721 is reported in 1991 constant dollars, which are crude measures derived from the consumer price index.

2 The service industries are: Transportation & Storage, Communications & Utilities, Wholesale Trade, Retail Trade, Finance & Insurance, Real Estate & Insurance, Business Service, Government Service, Education Service, Health & Social Service, Accommodation/Food/Beverage and Other Service.

16. The labour market experiences of graduates from all fields of study improved over time. However, graduates from some fields of study experienced far more improvement than graduates from other fields.
17. Health Services graduates were highly successful in the labour market in both 1987 and 1991. They had low unemployment rates, high earnings and a high incidence of study-related employment. Moreover, they showed the greatest amount of employment stability of all graduates. For example, they had held their February, 1991 jobs for the greatest length of time and were the least likely to have changed occupations and industries between 1987 and 1991.
18. Resource Technology graduates, on the other hand, had the greatest difficulty integrating into the labour market. Even though by 1991 their extremely high unemployment rates had dropped, and their labour force participation and incidence of permanent employment had increased, they still experienced the lowest incidence of full-time, study-related work and were the most likely to have changed occupations and industries between 1987 and 1991.
19. Computing Science graduates, who were reasonably successful in the labour market in the early stages of their transitions, enjoyed the most labour market success in 1991. Every graduate participated in the labour force, and only 3 percent of them were unemployed. Moreover, they had the highest incidence of full-time, study-related employment, and by far the highest earnings.
20. Engineering & Applied Science graduates also showed remarkable improvement. While in 1987 they were among the least successful in the labour market, they were among the most successful in 1991. Notably, their unemployment rates dropped dramatically, and they enjoyed high earnings and a high incidence of full-time, study-related employment.
21. Arts, Humanities graduates' labour market experiences had improved the least between the two survey years, so that by 1991, they had become the least successful of all graduates. They had the lowest incidence of full-time, study-related employment, the lowest incidence of permanent employment, and the second lowest earnings. Even so, they had a high participation rate and extremely low unemployment rate.
22. For the most part, graduates shared similar labour market experiences regardless of gender. However, in general, women and men were not employed in the same kinds of jobs, nor in the same types of industries. Moreover, women were significantly less likely than men to be working full-time. In addition, men earned more than women in both survey years, and this earnings imbalance widened between 1987 and 1991.

2.22 Summary of Graduates' Labour Market Experiences

Despite an economic downturn in 1986, graduates were quite successful at accessing the labour market in the early stages of their transitions. For example, in 1987, many graduates had already secured permanent, full-time jobs related to their programs of study. However, at this time, graduates experienced a higher than average level of unemployment, with an unemployment rate over two percent higher than the unemployment rate of Albertans of a similar age group.

By 1991, graduates' labour market experiences showed further improvement. This was due to graduates gaining valuable work experience and the economy improving considerably. On every indicator examined in this report, graduates fared equally well or better in 1991 than they did in 1987. Particularly striking was the significant reduction in unemployment; the unemployment rate of these graduates plummeted from 13 percent in 1987 to 4 percent in 1991. Moreover, graduates exhibited a high level of job satisfaction.

2.22.1 Most and Least Successful Fields of Study - 1987

While the early experiences of graduates as a group were generally favourable, these experiences were not uniform across the fields of study that comprised this group. At the time graduates entered the labour market in 1986, there had been a drop in world energy prices, devastating the oil and gas industry and causing setbacks in the construction and manufacturing industries. Graduates who sought work in these industries were adversely affected. However, the economic downturn affected other industries less seriously and spared others completely. For example, graduates seeking employment in industries such as education, health & social services, and business services had more labour market success.

Health Services graduates were, by far, the most successful in the labour market in 1987. They had the highest participation and employment rates (over 95 percent), the highest incidence of study-related employment (96 percent), and the highest earnings. Moreover, on most of these parameters, their results were better than the next highest result by a considerable margin.

Resource Technology graduates, many of whom sought employment in the oil patch, fared poorly in the labour market. Their participation rates were low, and those who did participate had an extremely high unemployment rate of 35 percent. Moreover, even employed graduates had the lowest incidence of full-time, study-related employment (64 percent) and the lowest incidence of permanent employment (63 percent).

The downturn in the economy also adversely affected the industries in which Construction/Fabrication/Repair and Engineering & Applied Science graduates sought employment. Accordingly, these graduates also had some difficulty integrating into the labour market. They had unemployment rates in excess of 19 percent, and the second and fifth lowest incidence of full-time, study-related employment (69 and 78 percent respectively).

2.22.2 Most and Least Successful Fields of Study - 1991

The economic climate for graduates had improved considerably by 1991. Though the oil and gas industry was still recovering from the downturn in 1986, it had diversified and new major resource projects were generating employment. Most industries experienced growth, and some of the greatest employment growth came in the manufacturing and construction industries. In addition, by this point, graduates had over four and one half years of experience. These three factors -- the improved economy, employment growth and increased job experience -- allowed graduates to have far more favourable experiences in 1991 than in 1987.

Health Services graduates still fared extremely well in the labour market in 1991. In fact, with the exception of an earnings increase, their results on all labour market indicators remained relatively constant. In addition, they showed the most employment stability. They had held their February, 1991 jobs for the greatest length of time, and were the least likely to have changed occupations or industries between 1987 and 1991. However, they were no longer the most successful in the labour market, since the experiences of graduates from two other fields of study had improved considerably.

By 1991, Computing Science graduates showed the most success in the labour market. All graduates from this field participated in the labour force, and over 97 percent of them were employed. Moreover, graduates from this field had the highest incidence of full-time, study-related employment (84 percent), and by far the highest earnings. In addition, the majority of them were very satisfied with their jobs.

In marked contrast to 1987, Engineering & Applied Science graduates were highly successful in the labour market in 1991. This improvement was primarily due to strong growth in the industries where many of them sought work: Business Services, Manufacturing, and Construction. By 1991, these graduates had the highest incidence of permanent employment (96 percent), the second highest incidence of full-time, study-related employment (82 percent) and the second highest earnings.

Though Arts, Humanities graduates had met with some labour market success in 1987, by 1991 they were the least successful of all graduates. Only 49 percent of these graduates were very satisfied with their jobs, which may be explained by the fact that they had the lowest incidence of full-time, study-related work (66 percent) and the second lowest earnings. However, even though they were unsuccessful relative to other fields of study, they still had a high participation rate (89.7 percent), and an extremely low unemployment rate of 3.6 percent.

As in 1987, Resource Technology graduates were also less successful than graduates from other fields of study. They had poor employment stability and the second lowest incidence of full-time, study related employment (68 percent). However, in spite of the continued stagnation in the oil and gas industry, these graduates showed remarkable improvement on certain labour market indicators. For example, their unemployment rate dropped 25 percentage points to 3.6 percent, and their incidence of permanent employment climbed 30 percentage points to 93.6 percent.

2.4 Survey of Recent Graduates of Faculties of Education

ABSTRACT

The major purpose of this study was to determine the employment status of the 1990-1991 cohort of graduates from the faculties of Education of the Province of Alberta. The study investigated the proportion of graduates who enter teaching in Alberta, to determine factors influencing whether or not a graduate enters teaching, and to determine if policy planners can count on a provincial talent pool of trained teachers who are not currently teaching but who might accept teaching positions in the future. One reason for commissioning the study is the fact that in recent years from 40% to 50% of graduates of the faculties of education do not take up teaching positions in the school systems of Alberta immediately upon graduation.

The review of the literature reveals major swings in the recruitment of teacher and the supply of graduates from 1945 to the present. The rapid demand for teachers and the consequent shortage of trained teachers during the period when the "baby boom" generation attended school was followed by a period of declining enrolments and a surplus of teachers. This latter period saw school closures and reductions in the enrolments in faculties of education. Today, the American literature in particular is forecasting major teacher shortages as an aging teaching force prepares for retirement and teacher education facilities have failed to increase to provide for an increasing school population.

The Canadian literature is more modest in its predictions. However, a recent report on teacher supply and demand in Alberta by Alberta Education and

Alberta Advanced Education does indicate that there is likely to be increasing demands for teachers generally and in certain subject specialties in particular.

A random sample of 618 B.Ed. graduates were drawn from the three Alberta universities for 1991. Alberta Education confirmed that approximately 95% of these graduates did apply for Alberta teaching certificates. Only 47% were teaching full-time in Alberta schools, 16% were teaching on a part-time basis and 37% could not be identified as holding teaching positions in the schools of Alberta.

Of the total group, 282 responded to a mailed questionnaire. Of this group, 92.5% had applied for an Alberta teaching certificate and 3% had applied for a certificate in another jurisdiction. Less than 5% did not apply for a teaching certificate anywhere. This result is similar for the entire sample of 618 graduates. Of the 282, 60% were teaching full-time, 23% were teaching part-time and 18% were not teaching. Thus the actual group of graduates who are not teaching in Alberta are under represented in the sample. We can assume that many of those who did not respond to the questionnaire had moved from the Province (their questionnaires were returned as undeliverable) or have committed themselves to occupations other than teaching.

Of those who responded, the reasons for not teaching are varied. There are those who have family responsibilities; some have gone on to obtain further education; some have not been able to obtain positions in areas where they are living and are unable or unwilling to move; others have moved on to other careers. Only 45% of the unemployed are looking for full-time positions.

Follow-up interviews were held with 32 graduates who are not working in teaching full-time. All currently are engaged in part-time or substitute teaching. Three themes emerged from these interviews. Many individuals are tied to a given location due to family responsibilities and the lack of mobility of their spouse. A few complained of discriminatory hiring practices by school boards in refusing to hire more mature applicants. Some indicated that they held specializations that were in little demand.

The following recommendations were made as a result of this investigation.

Proposals are required which will make it possible for residents in rural and isolated areas of the Province to undertake some or all of their teacher education without having to commute to urban centres. Proposals are also required to create programs which suit the particular needs and characteristics of rural life. Such programs should also permit students to gain practical experience teaching in rural communities.

RECOMMENDATION 1. It is recommended that Faculties of Education, in cooperation with Alberta Education, rural school divisions, and other educational partners, devise courses and programs which reflect the reality of teaching in rural and isolated communities and offer as much of such programs as possible within rural communities.

RECOMMENDATION 2. It is recommended that Faculties of Education prepare proposals for offering site-based teacher education programs in cooperation with local school jurisdictions in rural areas.

In order to retain rural residents who are interested in careers as teachers, rural school boards may have to become involved in the recruitment of residents to the teaching field.

RECOMMENDATION 3. It is recommended that rural school boards, in cooperation with the Alberta Teachers' Association, actively recruit residents to the career of teaching.

RECOMMENDATION 4. It is recommended that rural school boards provide financial assistance to residents who are willing to complete teacher education with the understanding that there is some commitment on the part of the student to return to the community to teach.

Some of the issues in this report concern the Province as a whole. These deal primarily with the hiring of women with family responsibilities and with older women returning to the work force.

RECOMMENDATION 5. It is recommended that school boards revise their hiring policies and practices to ensure that they are not discriminating against older applicants.

RECOMMENDATION 6. It is recommended that school boards offer flexible working conditions to returning teachers, such as job sharing and part-time employment.

This report has indicated that there are other issues relating to teaching in rural areas that have not been fully addressed in this report. The following two recommendations emanate from our belief that rural education needs further study.

RECOMMENDATION 7. It is recommended that Faculties of Education develop additional courses which deal with teaching in rural areas.

RECOMMENDATION 8. It is recommended that Alberta Education, Advanced Education, and other government agencies consider the establishment of a Provincial Research Centre on Rural Education.

2.5 Public College and Technical Institute Surveys

ABOUT THIS PUBLICATION

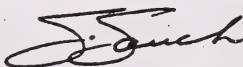
The Graduate Profile/Placement Survey is published annually by NAIT Career and Counselling Services. The graduate profiles provide a summary of the skills and knowledge students have gained during their course of study. Employers in business and industry rely on this information when recruiting graduates from NAIT's full-time programs. The placement survey reflects the job opportunities graduates have found in the labour market. This information is used extensively by high school counsellors, career counsellors and individuals making career decisions.

The Placement Survey results summarize the initial placement of students graduating between July 1, 1994 and June 30, 1995. When interpreting the information, the following should be kept in mind:

- The survey is conducted during the six-month period following graduation.
- Graduates are traced to their first jobs (excluding summer employment).
- Some career field choices (e.g., health sciences) will typically involve part-time/term employment, rather than full-time employment, for entry-level positions.
- Employment status is verified by Career and Counselling Services through telephone, mail and/or in-person contact.
- Reported salaries are documented for only those graduates who have obtained full-time, training-related employment.
- Employment patterns and reported salaries should be reviewed with reference to the sample size on which the statistics are based. For the employment pattern, the sample size is determined by taking the number of graduates traced for the survey and subtracting from it both the number of graduates who are planning further study and the number who are not seeking employment.
- The response rate for this survey (i.e., the total number traced compared with the number of graduates) is 92%. The number of graduates for this period was 2,743.

Overall, the survey results reveal that 63% of those traced have secured full-time training-related employment, an additional 7% are working in part-time training-related positions, and 9% have found employment unrelated to their training, giving a total placement rate of 79%.

We welcome your comments concerning this publication. Additional copies are available from the NAIT Career and Counselling Services office. Questions concerning the scope and methodology of the study may be directed to Jerry Cossitt or Pat Quilley at 471-8874.



S.G. Souch, Ph.D.
President

Section 3.0

Satisfaction Surveys

ALFRED

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3.1 University of Alberta Graduand Survey

UNDERGRADUATE EXPERIENCES AT THE UNIVERSITY OF ALBERTA

Results from the 1995 University of Alberta Graduand Survey

EXECUTIVE SUMMARY

The University of Alberta's program of exit surveys reflects its commitment to excellence in teaching and to systematic evaluation of its performance. The *Graduand Surveys* provide an annual assessment of the University, from the perspective of its most recent graduates, which can assist faculties, departments, and administrative units attempting to improve the educational experience for students. In addition, comparisons of results from consecutive exit surveys can help track the success of efforts to improve the University's teaching practices and service provision.

This report summarizes findings from the 1995 *Graduand Survey*, the fourth in the annual series. All students receiving degrees (from undergraduate or professional programs) at the 1995 spring Convocation were surveyed. Completed questionnaires were received from 1349 graduates (32 percent of those graduating).

Throughout much of this report, findings are presented for each faculty as well as for the University as a whole. For questions about teaching and learning experiences where department-level results would be useful, inter-department comparisons are provided if at least 15 graduates from a department participated in the study. No attempt is made to discuss or explain inter-faculty and inter-department differences. Because of different program goals, teaching methods, and access to resources across the University's many departments and faculties, interpretation of the detailed survey results is best left to individuals within specific departments and faculties.

1. Approximately three-quarters of the 1995 graduates who participated in this survey expressed pride in the University of Alberta, stated that they were satisfied with the education received, acknowledged that they would choose the University of Alberta again (if starting over), and said they would recommend it to a friend. Comparisons to results from the three previous exit surveys reveal that the high level of satisfaction expressed by University of Alberta graduates has been maintained since 1992.

2. As in the previous three exit surveys, the majority of graduates reported considerable improvement in a wide range of general and specific skills and competencies. Significant improvements in the ability to learn and work independently, and in critical judgement, were reported by four out of five 1995 graduates. About 70 percent indicated considerable improvement in their ability to work well with others and in their problem-solving skills. Approximately six out of ten reported considerable improvement in writing and speaking skills, social, leadership, and conflict-resolution skills, and creative thinking.

3. *The reality of today's difficult labour market for well-educated workers is reflected in these survey findings. While 59 percent of the 1995 graduates had a job arranged at the time of graduation, only half were permanent jobs, although three-quarters were full-time and related to the graduate's area of study. These proportions had declined somewhat since the first exit survey in 1992. In turn, the average education-related debt of graduates has increased steadily over the past four years, to \$15,500 in 1995 (for the 68 percent of the sample who reported some education-related debt).*

4. *Only one-half of the 1995 graduates reported that their career prospects had improved considerably as a result of their studies. Almost half (47 percent) acknowledged considerable improvement in specific skills sought by employers. These findings had changed little since 1992. As expected, graduates of professional faculties where career paths between education and specific jobs are more clearly defined were more positive in their assessments of career prospects. These confident assessments of career opportunities are matched by respondents' reports of post-graduation job arrangements; graduates of professional faculties were much more likely to have full-time, permanent, education-related jobs arranged.*

5. *Two-thirds or more of the 1995 graduates considered their undergraduate programs to have been stimulating, enriching, and enjoyable. Eighty percent were satisfied with the theoretical content of their program, while many fewer (only 43 percent) felt their program had sufficient practical focus. Graduates of professional faculties were more likely to provide positive assessments of the practical content of their programs.*

6. *A sizeable minority of 1995 graduates (about one in six) were dissatisfied with the effort of instructors to verify that learning was occurring, and with the amount of classroom participation and feedback encouraged by instructors, while about one in three disagreed that teaching assistants had been used effectively. However, about two-thirds of the 1995 survey participants agreed that their instructors had been reasonably accessible outside of class and had displayed a positive and respectful attitude toward students. In fact, comparisons to results from previous exit surveys reveal improvement in evaluations of instructors' attitude towards students.*

7. *More than seventy percent of the 1995 graduates evaluated library holdings positively while library hours were assessed positively by about six out of ten graduates. But fewer (about 40 to 50 percent) provided positive assessments of classroom, laboratory, and computer facilities, and study space. Between 1992 and 1995, positive assessments of library hours, study space, and computer facilities have increased.*

8. *Survey respondents tended to be more critical of support services. For example, university residences, campus food services, bookstore services, parking, counselling services of various kinds, orientation programs, and financial support for students were assessed positively by only a minority of those 1995 graduates who evaluated these specific services. However, campus recreation facilities and programs, health services, and registration procedures received positive assessments from about 60 percent of graduates. Over-time comparisons revealed more positive than negative changes in evaluations of support services. In particular, graduates' assessments of safety on campus have improved steadily over the past four years.*

Given significant differences in students' educational aspirations, wide variation in educational goals and teaching methods across faculties and departments, and the rapidly changing economic and political context within which universities operate, the broad generalizations listed above are presented cautiously and should be interpreted in the same manner.

To be more specific, the different goals and aspirations of university undergraduates no doubt affect their evaluations of the university experience. While many graduates did not rate improvements in career options positively, for example, many came to university with goals that included both personal intellectual development as well as employment considerations. In fact, about two-thirds of the respondents in each of the four exit surveys conducted since 1992 stated that universities should provide both a broad general education as well as training for specific jobs, instead of focusing on just one or the other.

Second, different faculties and departments have different goals. Some train small numbers of students for specific professional labour markets while others focus on developing broader but less job-specific skills and competencies. Both functions are clearly important.

Finally, graduates' evaluations of their university experiences must be interpreted from a perspective that acknowledges that University of Alberta programs and services are being dramatically restructured to respond to funding cutbacks. Similarly, graduates' assessments of their career prospects must be interpreted with a recognition that employment growth in the province and the country has been sluggish for some years. Nevertheless, research continues to show that, compared to those without a degree, university-educated youth fare considerably better in the job market.

Section 4.0

Adult Education, Training and Apprenticeship Surveys

4.1 National Apprenticeship Survey/National Apprenticed Trades Survey

HIGHLIGHTS

Median age:

The median age of apprentices at the time of registration was 21 years.

Gender:

Four out of every five of the respondents were male.

Geographic mobility:

Over 90% of all individuals having participated in an apprenticeship program remain in their province of origin following the program.

Main activity prior to registration:

More than half of the individuals (58%) were employed prior to registration.

Level of education prior to registration:

Over two-thirds of the respondents graduated from high school prior to registering in the apprenticeship program (completers, 71% and discontinuers, 65%).

Influential advisors:

Employers were identified by the largest number of respondents as having the greatest influence on their original decision to enrol in the apprenticeship program.

Qualifications obtained:

Two out of every five individuals who completed their apprenticeship program were awarded the "Red Seal" designation allowing them to practice their trade anywhere in Canada.

Length of program:

On average, it took 3.9 years for individuals to complete all of the requirements of their apprenticeship program. By comparison, discontinuers averaged 2.1 years in the program before they left, indicating that many received a high proportion of the training.

Job opportunities for apprenticeship:

Most individuals did not have a problem finding an employer for their apprenticeship program. However, two of every five (42%) were laid-off at least once during on-the-job training and this applied equally to those who eventually completed the program and those who did not.

Credit for prior work and education:

Sixty percent of respondents who had work experience in the trade prior to registration received recognition in the form of a reduction in program requirements; 31% of both completers and discontinuers were credited for previous in-class training.

Evaluation of on-the-job training:

Nine of every ten individuals responded that the equipment and facilities for on-the-job training were adequate and most (89% of completers and 81% of discontinuers) reported that the skills acquired matched trade requirements.

Evaluation of In-class Training:

Individuals who discontinued their program tended to rate the in-class training portion more favourably than those who completed the program. Eighty seven percent of discontinuers compared to 75% of completers rated the adequacy of equipment as "enough" and as "up-to-date". Sixty nine percent of discontinuers compared to 59% of completers rated the techniques and theory acquired in-class as "up-to-date".

Employment:

Ninety six percent of completers and 52% of discontinuers worked in their trade for some time during the first twelve months after they completed or left the program. Two to three years after the program, these percentages had declined to 90% for completers and 32% for discontinuers.

For those working in their trade, completers worked an average of 11 months and discontinuers, 9 months during the first year after the program. Two to three years after the program, completers were still working close to an average of 11 months while the average for discontinuers had declined to 3.5 months.

During the first year following their apprenticeship program, 80% of completers continued to work for the same employer they had as an apprentice, and 71% of them worked continuously throughout the twelve months. Conversely, 36% of discontinuers worked for the same employer, and only 21% of them for the full twelve months.

Earnings:

Completers earned a median annual income of \$30,000 for their current or most recent job. By comparison, discontinuers earned \$22,000.

4.2 Adult Education and Training Survey

Executive Summary

Interest in adult education and training is increasing rapidly throughout the industrialized world as employers, governments and working people come to recognize the growing importance of learning to wealth creation and the opportunities structure of modern economies. Accompanying this recognition is an enhanced concern for data on learning as a guide to educational and economic policy development.

In this context, Statistics Canada conducted a major survey of the education and training behaviour of the Canadian adult population in 1991. Of the 45,328 Canadian adults surveyed, 4,160 were residents of Alberta. This survey measured 'programs' [a selection of several courses, or a combination of courses usually taken for credit towards a degree, diploma or certificate], 'courses' and 'on-the-job' training. It also distinguished between job-related and personal interest reasons for taking training, and collected ground-breaking information on employer-sponsored education and training.

This report, commissioned from the Canadian Association for Adult Education by Alberta Advanced Education and Career Development, classifies the surveyed population into three groups:

- *Population A* – all persons 17 years of age or over,
- *Population B* – the above group [A] excluding youths in full time education and persons 70 years of age or over, and
- *Population C* – the above group [B] excluding persons who were not employed at any time during 1991.

Adult [Population B] participation in programs in Alberta is slightly below the Canadian average, Albertans' participation in courses is substantially above the national average – and this difference is most pronounced in work-related courses. While courses in Alberta are slightly shorter on average than for Canada as a whole, the duration of several types of programs, such as elementary and high school diploma, university degree and trade-vocational diploma is significantly above the Canadian average.

While women's participation in programs and courses is higher than men's in both Alberta and Canada, men lead women in work-related course participation. Older Albertans participate in courses significantly more than their counterparts in Canada as a whole. Throughout the country there is a strong tendency for persons with higher levels of formal education to participate much more than persons who are educationally disadvantaged, but this tendency is somewhat less pronounced in Alberta. In both Canada and Alberta, urban adults participate significantly more than rural adults.

Twenty percent of the working Albertans participated in employer-sponsored training vs. 16% in Canada. While this is not the case in the country as a whole, Albertan women are somewhat more likely than men to receive employer-sponsored training. Inferring from Canadian data, some 325,000 work-related courses may have been paid for by employers in Alberta in 1991 – and time-off or leave may have been provided for about 300,000 courses that year. Seventeen percent of Albertans with 0-8 years of education received employer-sponsored training in 1991 vs. 10% of Canadians in the same educationally disadvantaged category.

In Alberta the most popular course content areas are data processing and computer science technology [12% of all courses taken], followed by medical laboratory and diagnostic technology and treatment [8%], personal development [7%] and marketing, merchandising, retailing and sales [7%].

The AETS posed two questions on the topic of barriers to participation. Alberta respondents are less likely than Canadians as a whole to identify as a barrier that the education or training they wanted was "not offered", and more likely to respond that the reason for not taking a course was "family responsibilities".

Investments in human capital generate an economic and social return that is higher than the private return to individuals within society. Data from the AETS illustrate substantial gaps in the opportunities structure in Canada. This offers grounds for concern around our future competitiveness in the world economy – as well as the potential for cohesion – building and maintaining a sense of belonging in our society.

However, as the "learning province", Alberta enjoys a substantial advantage over other Canadian jurisdictions. In general, participation in adult education and training in Alberta is in the order to 20% greater than the Canadian

average. In addition, although huge gaps in learning participation exist between the most advantaged and the most disadvantaged persons in Alberta, these gaps are smaller than those in other Canadian jurisdictions.

Both these factors suggest a competitive advantage to Alberta in the world-wide search for new investment in an information age. As others are working hard to improve their standing, now is no time for Alberta to rest on its laurels.

4.3 Apprenticeship Long Range Follow-up Case Study

EXECUTIVE SUMMARY

Apprenticeship and Industry Training staff and other supporters of apprenticeship training have long believed that apprenticeship training contributes to job satisfaction, good employment prospects and better than average wages for graduates. A recent case study of apprenticeship graduates supports this belief.

A small criterion-based sample was used for this follow-up study. 409 Alberta apprenticeship program graduates from the years 1976, 1981 and 1986 were randomly selected from a computerized data base. Telephone interviewers from HLA Consultants successfully contacted and surveyed 291 candidates.

Respondents were asked if they were still working in the trade, how satisfied they were with their work, and other questions about their work history, annual income and lifestyle. The responses to questions answered by all respondents are representative of the total population of apprenticeship graduates in the selected years to a level of confidence of $95\% \pm 5.5\%$.

The results of the study can be summarized as follows.

- Over 70% of the respondents were still working in the trade in which they apprenticed.
- 48% of those who remained in the trade stated that they were now either managers or supervisors.
- Most respondents who had left their trade were working in the same or similar industries and in similar occupational classifications.
- Over 60% of respondents indicated they had fewer than three employers since completing their apprenticeship.
- Approximately 50% of the respondents worked for employers with less than 50 employees.
- 19% of the respondents still working in their trades indicated they were self-employed (as compared to 11% of Alberta's work force).
- Salaries for those who remained in their trades tended to fall between \$30,000 and \$50,000 a year.

4.4 Entry Into the Trades Survey

EXECUTIVE SUMMARY

1) The Alberta Survey on Entry into the Trades - 1991 was undertaken to collect information on Current Apprentices and Recently Certified Journeymen about their entry into the trades. The Journeymen group did not take apprenticeship training in the trade in which they were most recently certified. Instead, they obtained their trade knowledge and skills through on-the-job training only. The survey asked respondents to identify influences, experiences, motivations and attitudes they had about the trades and why or why not they chose to apprentice in them. To make comparisons between the groups easy, two similar questionnaires were used.

2) The results of the survey were analyzed for the entire respondent populations as well as trade clusters. Trades were combined into the following trade clusters: Electrical Trades, Metal Trades, Vehicle and Related Trades, Building Trades, Industrial Trades, Service Trades and Piping Trades.

3) 3,150 Apprentices and 1,417 Journeymen responded to the questionnaire. These results can be interpreted with high level of confidence.

4) The average age for entering a trade was 26 years for both Apprentices and Journeymen. The Apprentices recorded the lowest average age in the Vehicle and Related Trades Cluster (25 years) and the highest in the Industrial Trades (28 years). For the Journeymen a low average of 23 years was found in the Electrical Trades and a high average of 32 years was found in the Piping Trades.

5) 93% of all respondents in both groups were male. A large majority of female Apprentices and Journeymen were found in the Service Trades. The Service Trades include the following trades: Cook, Baker, Beautician.

6) Apprentices and Journeymen were asked how many women they thought were in their trade, as well as whether or not the trades were suitable for both sexes. About three-quarters of both groups thought there were few women in their trades and, a large percentage of both groups thought the trades to be equally suitable for both men and women. Service Tradesmen thought their trade to be equally fitting for both sexes, whereas the Piping Tradesmen indicated the opposite. The following were given as the main reasons for trades not being equally appropriate for both sexes:

1. Physically Demanding,
2. Unclean Environment, and
3. Work too Dangerous.

7) Apprentices appeared to be well educated at the time they decided to enter their trade. 47% had completed grade 12 and another 27% had some

level of post-secondary education. Vehicle and Related Tradesmen had the highest levels of grade 12 graduates (54%), and the Industrial Trades indicated the lowest at 42%.

8) 33% of the Journeymen had completed grade 12. The largest percentage of graduates were in the Electrical Trades (39%) and the lowest percentage were in the Piping Trades at 24%. 16% of all the Journeymen had completed only grades 9/10 (compare with 12% for the Apprentices).

9) The following factors were the most influential in the decision to enter the trade:

Apprentices

1. Previous Employment
2. Family
3. School Counsellors*

Journeymen

1. Previous Employment
2. Family
3. Vocational Courses
(in Jr. & Sr. high school)

10) Respondents were asked if they had encountered any factors which discouraged them from entering the trade. 91% of the Apprentices indicated they received no discouragement to enter the trades. 94% of the Journeymen shared the same view. For those who indicated some discouragement, the main sources were: parents, friends, teachers and school counsellors.

11) When asked what personal influences and motivations contributed to the decision to enter the trades, the responses were:

Apprentices

1. Need to Secure Future
2. Opportunity for Creative Work
3. Opportunity for a High Income
4. Need to Make Money

Journeymen

1. Wanted a Secure Future
2. Opportunity for Creative Work
3. Circumstances Made It
Easy to Enter the Trade

12) 95% of the Apprentices indicated they would recommend Apprenticeship Training as the route to certification. 89% of the Journeymen said they would also recommend Apprenticeship Training as the desired route to certification (in spite of the fact that they did not apprentice in their most recently certified trade). The Journeymen recommended Apprenticeship Training for the following reasons:

Apprenticeship Training:

1. Offers Thorough Training,
2. Provides A Sense of Accomplishment, and
3. Benefits the Job.

* It should be noted that 87% of the Apprentices actually felt that school counsellors had no influence on their decision to enter the trades.

13) Apprentices cited the following reasons for Apprenticeship Training instead of choosing only on-the-job training:
Apprenticeship Training:

1. Provided Opportunity to Become More Skilled,
2. Was a Requirement of the Trade,
3. Offered Opportunity for Exposure to Different Aspects of the Jobs, and
4. Helped To Attain Faster Promotions and Pay.

14) Both Apprentices and Journeymen gave the following reasons for choosing the trades as their career: (listed in order of importance)

1. Enjoy the Work
2. Good Money
3. Job Security

15) 91% of the Apprentices indicated that they had a positive feeling towards the career choice they made. The Piping Trades Apprentices were the most positive (94%) and the Vehicle and Related Tradesmen were the least positive (89%) about their career choice. 88% of all the Journeymen felt positive about their career choice. A majority of the Apprentices and of the Journeymen who were not happy about their career choice, still recommended a career in the trades.

Section 5.0

Literacy Surveys

5.1 Literacy Skills Used in Daily Activities

EXECUTIVE SUMMARY

In October of 1989, Statistics Canada conducted the Survey of Literacy Skills Used in Daily Activities (LSUDA) in order to directly assess the functional literacy skills of Canadians aged 16-69 years. Using a series of commonplace tasks of varying difficulty, supplemented by a self-assessment of the literacy skills and needs of Canadians, the survey provided a detailed literacy profile of the adult population in Canada. The present report focuses on describing the literacy skills and needs of Albertans, and on explicating the relationship between literacy and other socio-economic indicators within Alberta.

The survey defined literacy as "the information processing skills necessary to use the printed material commonly encountered at work, at home and in the community", thus encompassing reading, writing and numeracy skills. However, only the reading and numeracy components of the survey allowed for generalizations to be made about the broad ability levels of Albertans. Reading abilities were grouped into four levels, ranging from Level 1 at which individuals have virtually no skills in either official language to Level 4 at which people have skills sufficient to meet most everyday reading requirements. Numeracy skills were grouped into three levels of ability ranging from Level 1 at which respondents have very limited ability to Level 3 at which people can meet most everyday numerical demands. The following are highlights of the Alberta results:

- The majority (71%) of adult Albertans have sufficient reading skills to meet most everyday demands (Level 4). Another 17% of Albertans can use reading materials in a variety of contexts, provided that the material is simple and clearly laid out (Level 3). Approximately 5% of Albertans have virtually no reading skills in either of Canada's official languages (Level 1), and another 7% have very limited skills such as the ability to recognize a familiar word in a simple text (Level 2).
- An estimated 72% of Albertans aged 16-69 years have numeracy skills sufficient to deal with most everyday requirements (Level 3). Another 20% of Albertans are limited to some extent in their numerical abilities, being able to perform only simple operations such as addition or subtraction (Level 2). Finally,

an estimated 8% of adults in Alberta have very limited numeracy abilities. The skills of this latter group would enable them to, at most, locate and recognize numbers in isolation or in a short text.

- In general, literacy levels have improved with succeeding generations of Albertans. Those aged 25-34 years (82%) are almost twice as likely as 55-69 year olds (46%) to have reading skills that are sufficient to meet most everyday demands. Numeracy skills also tend to be slightly higher among younger age groups, with the exception of 16-24 year olds, among whom only 59% had a level of numeracy skill adequate to deal with most everyday requirements. It is not clear whether the poor performance of this age group stems from an inability to perform the calculations or a relative unfamiliarity with the context of the numeracy tasks commonly encountered in adult life.
- As would be expected, given the relative unfamiliarity initially of many immigrants with either of Canada's official languages, immigrants were less likely (54%) than Canadian born (75%) Albertans to have reading skills adequate to meet most everyday requirements. Immigrants were also found to be somewhat less likely (62%) than Canadian born persons (74%) to have numeracy skills sufficient to meet most commonplace demands, perhaps due to the nature of the tasks, which involved numerical operations imbedded within the type of documents and forms encountered in everyday life in Canada.
- Albertans who had experienced health problems or disabilities that could affect learning had a lesser likelihood of being at the highest level of reading literacy and numeracy ability. Less than two-thirds of this group were at the highest level of reading and numeracy skill, as compared to almost three-quarters of those who indicated that they had never experienced such problems.
- As one would expect, educational attainment was strongly associated with the literacy skills of Albertans. Only 45% of those who had not graduated from high school had reading skills adequate to meet most everyday demands, as compared to 70% of high school graduates, and 90% and 91% respectively, of those who had some post-secondary education or had completed a post-

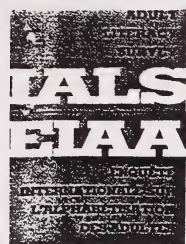
secondary program. Similar results were found with numeracy ability. Clearly, graduation from high school appears to mark a turning point at which the likelihood of illiteracy is greatly lessened.

- The literacy level of Albertans, in particular reading skills, was also related to parents' education. While the influence of fathers' education on the skills of respondents showed a continuous positive association, the influence of mothers' education turned on whether or not one's mother had completed high school. Only two-thirds (66%) of Albertans whose mothers were not high school graduates had reading skills sufficient to meet most everyday demands, as compared to 84-85% among those whose mothers had attained a high school diploma or more.
- Not surprisingly, given the link between education, employment status and income, lower income Albertans are more likely to experience literacy problems than are higher income Albertans. While 83% of those with annual personal incomes of \$30,000 or more have reading skills sufficient to meet most everyday demands, only 64% of those earning less than \$10,000 have skills at this level. Similarly, 86% of those who earn \$30,000 or more are at the highest level of numeracy ability, as compared to only 58% of those with personal incomes of less than \$10,000.
- Those Albertans who were employed at the time of the literacy survey were more likely to have sufficient reading (74%) and numeracy (76%) skills to meet most everyday requirements, than were those who were not currently working (61% had adequate reading skills and 57% had adequate numeracy skills). Skill levels were particularly low among those who had not worked at all during the year prior to the survey. Those who were unemployed at some point in the year prior to the survey were less likely to experience literacy problems than were those who were out of the labour force, indicating that the labour force as a whole, both the employed and the unemployed, has a higher level of literacy than those out of the labour force.
- Response to questions about the reading and writing requirements encountered at work suggest that the vast majority of all jobs require individuals who have, at minimum, basic reading and writing skills. For example, 85% of the employed

indicated that their jobs required them to read letters, memos or notes, and 80% are required to write notes, memos, messages or letters.

- The vast majority of the employed felt that their reading (88%) and writing (85%) skills are not a limitation to their job opportunities, and 93% felt that their reading skills were adequate for other areas of their life. Among those employed respondents who did perceive skill inadequacies or limitations, job-related literacy training, specialized job training and programs that aid in the pursuit of formal education were seen as the most useful types of training. Those who viewed basic literacy programs as useful preferred that they be taught by an instructor from a local school or community college.
- On a scale of 1 to 5, with 1 being poor and 5 being excellent, the majority (68%) of Albertans rated their own reading and writing skills in English as good to excellent (4 or 5 on the scale). Another 25% of Albertans gave their skills a neutral rating (3 on the scale), and only 7% considered their skills to be poor (1 or 2 on the scale).
- Given that the majority of Albertans assessed their own skills positively, it is not surprising to find that 63% of Albertans are very satisfied with their reading and writing skills in English. Another 26% indicated that they are somewhat satisfied with their skills, and only 11% indicated that they are either somewhat or very dissatisfied with their skills.
- Finally, the survey found that there is a positive relationship between the objective measure of reading skills as assessed by the literacy tasks, and the perceived skills of respondents, particularly at the higher levels of ability. For example, the vast majority (81%) of those with reading skills sufficient to meet most everyday demands rated their own skills as good to excellent. There is somewhat less correspondence among the actual and perceived abilities of those with lower skill levels, in that many of them do not perceive their skills to be as poor as was indicated by their performance on the literacy tasks. This suggests that a substantial portion of those with serious literacy problems may not seek help with their skills in the form of literacy programming.

5.2 International Adult Literacy Survey



Reading the Future: A Portrait of Literacy in Canada



Highlights from the Canadian Report

Reading the Future, the Canadian report on the findings of the International Adult Literacy Survey (IALS), provides a portrait of Canadian literacy that adds greatly to the understanding of the benefits and consequences of literacy in our society. The report shows that complex social and economic forces influence literacy. The IALS data indicate that individual choice and supportive actions by employers and governments can shape some of these forces.

The concept of “literacy” has evolved. Literacy now means more than the basic ability to read and write. Literacy skill levels now also reflect a person’s ability to understand and use information, a key function in a world where daily living requires higher communication and information processing skills. This report details results on three scales (prose, document and qualitative literacy) along a continuum of skills from 1 (lowest) to 4/5 (highest).

Simply stated, literacy is important. Society rewards individuals who are proficient and penalizes those who are not, whether expressed in terms of employment opportunities and job success or active social, cultural and citizenship participation in society. Literacy is also important to nations, as these skills are building blocks. They enable the creation of a labour force capable of competing in a changing world—a key step to economic growth and improvement of the human condition. They are also the cornerstones of democracy and of the exchange of knowledge and information.

What follows are some principal findings of the Canadian Report of the International Adult Literacy Survey (IALS).

A Canadian profile

The fundamental story of literacy in Canada remains the same as it was five years ago: significant numbers of adult Canadians have low-level literacy skills that constrain their participation in society and in the economy.



Comparisons of the distribution of literacy on the three IALS scales with that on the single LSUDA reading scale, Canadian adults aged 16 to 69

Scale	IALS levels			
	1	2	3	4/5
	%			
Prose	18	26	35	22
Document	19	25	32	24
Quantitative	18	26	34	22

	LSUDA levels			
	1	2	3	4
	%			
LSUDA	7	9	22	62

As the table above shows, IALS Level 1 includes LSUDA Levels 1 and 2. IALS Level 2 is equivalent to LSUDA 3; and IALS Levels 3, 4 and 5 divides LSUDA Level 4 into three separate levels.

Note also that the above table provides figures for adults aged 16 to 69, while the table on page 3 provides figures for adults 16 and over (i.e. including adults beyond the age of 69).

At the broadest level, literacy profiles in Canada have shown little change over the past five years. This belies earlier predictions of a continuing erosion of literacy skills in Canada. At the same time, given that a new group of students known to have strong literacy skills graduated in the intervening period, some improvements might have been expected.

In fact, the latest group of graduates are generally much better educated and more literate than older age groups. But the International Adult Literacy Survey detected no appreciable overall improvement. This suggests that other factors are affecting the literacy skills of working Canadians, and points to the need for further research.

Clearly, literacy continues to be an issue of importance to Canadians. The table on page 3 shows that

- about 22% of adult Canadians 16 years and over fall in the lowest level of literacy. They have serious difficulty dealing with printed materials and most likely identify themselves as people who have difficulties reading; and
- another 24-26% fall in the second lowest level. Such people can deal only with material that is simple and clearly laid out, and material in which the tasks involved are not too complex. They read, but not well.

Literacy from province to province

The distribution of literacy skills on three scales by region and selected provinces of Canada, adults aged 16 and over

	Prose scale			
	Level			
	1	2	3	4/5
	%			
Canada	22	26	33	20
Atlantic provinces ¹	25	26	35	15
New Brunswick	28	31	25	16
Quebec	28	26	39	8
Ontario	19	28	28	25
Western provinces ²	18	24	34	25
Alberta	15	21	36	29
British Columbia	19	24	35	22

	Document scale			
	Level			
	1	2	3	4/5
	%			
Canada	23	24	30	22
Atlantic provinces ¹	28	26	32	14
New Brunswick	29	30	24	16
Quebec	31	27	29	13
Ontario	21	22	31	26
Western provinces ²	19	25	29	27
Alberta	16	21	33	30
British Columbia	20	29	27	25

	Quantitative scale			
	Level			
	1	2	3	4/5
	%			
Canada	22	26	32	20
Atlantic provinces ¹	23	30	30	16
New Brunswick	25	34	27	14
Quebec	28	32	30	10
Ontario	20	23	34	23
Western provinces ²	18	24	33	25
Alberta	13	22	38	27
British Columbia	21	23	34	23

1. New Brunswick, Newfoundland, Nova Scotia and Prince Edward Island.

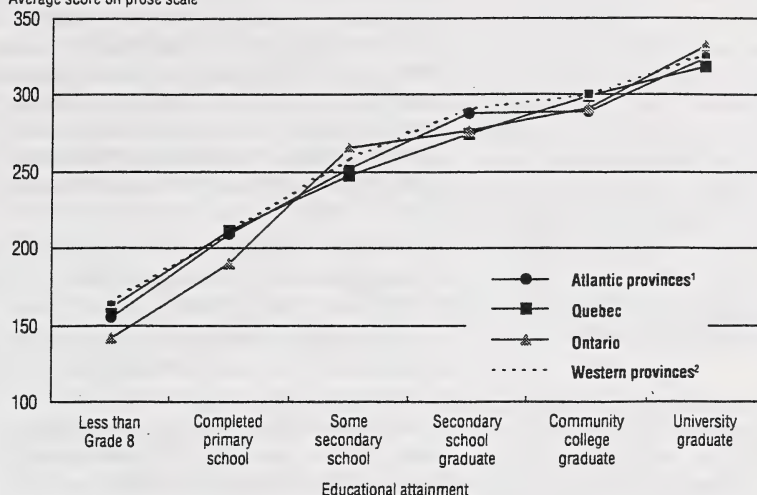
2. Alberta, British Columbia, Manitoba and Saskatchewan.

There is considerable variation in Canadians' literacy skills and that variation differs by region. Generally, there are larger numbers of adults with high skill levels in the western provinces and large numbers with low skills in the east.

The regional differences in levels of literacy skills across Canada are consistent with other characteristics associated with literacy. For example, educational attainment differs greatly from region to region, and literacy levels follow a similar pattern.

Average prose score by educational attainment for each region of Canada, adults aged 16 and over

Average score on prose scale



1. New Brunswick, Newfoundland, Nova Scotia and Prince Edward Island.

2. Alberta, British Columbia, Manitoba and Saskatchewan.

Highest level of educational attainment	Typical literacy pattern
No secondary education	Most at Level 1, particularly those who have not completed primary school; only very few individuals at Level 4/5.
Some secondary school	Largest number at Level 2; representation at Levels 1 and 3.
Secondary school graduate	Largest number at Level 3; second largest at Level 2.
Community college graduate	Largest number at Level 3; second largest at Level 4/5.
University graduate	Largest number at Level 4/5; a handful of individuals at Level 1.

About 18% of those aged 16 and over in the Atlantic region and 21% of those in Québec have less than Grade 8 education, but only 12% of Ontarians and 11% of those in the western provinces have the same level of education. However, when comparisons are made within levels of educational attainment, the differences among the regions are greatly reduced. In other words, a person in Nova Scotia with a post-secondary education is just as likely to perform at a high level as a person with a similar education in British Columbia.

The education connection

The Canadian results reveal a clear relationship between educational attainment and literacy levels. Most adults with no secondary education are at Level 1. Among those with some secondary education, most are at Level 2. The largest number of adults who hold a high school diploma perform at Level 3 or lower. Adults who took an academic program have stronger literacy skills than those who chose the vocational route. Of those who completed community college, most have Level 3 or higher while most adults with a university degree have Level 4/5. Among most recent school leavers, there are few individuals at Level 1, with most at Levels 2 and 3, a finding which belies any notion of widespread school failure.

Yet the connection between educational attainment and literacy levels, while strong, is not exclusive. Many individuals — one third of the population in fact — do not fit the general pattern.

Surprisingly, one third of Canadians who have not completed secondary school reach Level 3 or higher while a quarter or more of those who have completed a community college program are at the lower levels (1 or 2). In all, the literacy levels of about 20% of the Canadian sample in IALS are lower than the model one would predict, and about 16% are higher. Clearly, education does not “fix” a person’s literacy skills for a lifetime.

Analysis of the literacy skills of persons aged 20 years or less shows that those who are still in high school outperform those who have left school without a diploma. This suggests that school leavers’ low literacy levels may have contributed to their decision to leave school before graduation; therefore literacy may be a determinant of educational attainment as well as a consequence of it.

Those who leave school without a diploma do poorly on the quantitative scale. Results from IALS show that high scores on this scale tend to be associated with individual economic success. Programs targeted to school leavers, which focus on numeracy skills, may help to protect their economic future.

In Canada, there are consistent distribution patterns of literacy by education across the three scales. However, this is not the case in some other countries such as Germany. The report shows that, of those respondents with low education, a higher proportion of Canadians than Germans perform at Level 1 on the document and quantitative scales. It is possible that this difference is due to Germany’s system of secondary vocational education which emphasizes work experience. IALS results suggest that document and quantitative skills are particularly important to success in the workplace. If this is the case, then young Canadian adults may be less well prepared for work than their German counterparts. This lends support to policies aimed at increasing Canadian secondary students’ work experience through co-op programs, apprenticeships and other school-to-work arrangements.

Literacy and “alphabétisme”

The survey asked respondents to identify their mother tongue and gave them the choice of taking the literacy test in either English or French. Only 72% of the respondents who said their mother tongue was French (francophones) took the test in French; most of those whose first language was French, but who took the test in English, lived outside Québec or New Brunswick.

Nearly all francophones in Québec and 85% of francophones in New Brunswick chose to be tested in French. On the other hand, only about half the francophones in Ontario and a very small minority of francophones in the other provinces asked to do the test in French. In contrast, 99% of those who said their mother tongue was English took the test in English. This reflects a multitude of factors including

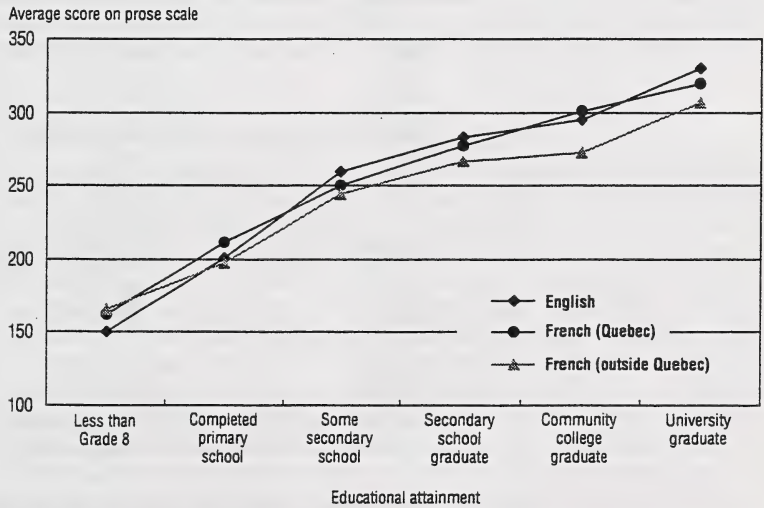
differences in concentrations of francophone populations, the proportion of fluently bilingual test-takers, the effects of language of work and access to education.

For example, due to the historical differences in access to education, particularly at the secondary level, there is a marked disparity in educational attainment between francophones and anglophones. This disparity is also reflected in the literacy levels. A larger proportion of francophones than anglophones are at Levels 1 and 2, while a larger proportion of anglophones than francophones are at Levels 3 and 4/5. However, when educational differences are taken into account, the disparity between the language groups disappears (a francophone with a university education has skills just as strong as an anglophone with a similar education) and the patterns of interlanguage comparison no longer systematically favour one group over the other. This signals that education access, attainment and quality are the main forces driving these literacy differences.

Young Quebecers (both English and French) have a significant majority performing at Level 3 on the prose and quantitative scales. This is a significant development which demonstrates the effects of increased access to education in one's mother tongue.

The skill levels of francophones outside Québec on the document and quantitative scales are largely equivalent to those of francophones in Québec. On the prose scale, a higher proportion of francophones living in Québec are at Level 4/5 than those living outside Québec, where the scores are generally lower.

Average prose score by educational attainment for language groups in Canada, adults aged 16 and over



Policy in action: new-language literacy amongst immigrants

The international study, released in December 1995, found that in all IALS countries a significantly larger proportion of immigrants have Level 1 literacy skills in their new country's language than the non-immigrant population. This holds true in Canada. On the other hand, a significantly smaller proportion of immigrants than native-born citizens had Level 4/5 literacy — except in Canada. In Canada, the proportion of immigrants with Level 4/5 skills in English or French was higher than the proportion of non-immigrant Canadians.

This result, which sets Canada apart from all the other countries that participated in the survey, is thought to reflect Canada's longstanding immigration policies which welcome both business-class immigrants, likely to have excellent education and literacy skills in English or French, and refugees and family-class immigrants, less likely to be skilled in one of Canada's official languages.

Literacy from generation to generation

There is a marked difference in literacy between those who were educated primarily after World War II and those whose education was completed before that period. This disparity can be explained, in large part, by significant differences in educational attainment.

Distribution of literacy by age across the three scales, Canadian adults aged 16 and over

Age group	Prose scale Level			4/5
	1	2	3	
	%			
16 to 25	11	26	44	20
26 to 35	12	29	33	26
36 to 45	13	19	37	31
46 to 55	21	30	31	18
56 to 65	38	26	28	8
Over 65	53	27	19	...

Age group	Document scale Level			4/5
	1	2	3	
	%			
16 to 25	10	22	36	31
26 to 35	14	25	34	28
36 to 45	14	22	37	27
46 to 55	23	31	24	22
56 to 65	44	24	24	...
Over 65	58	22	18	...

Age group	Quantitative scale Level			4/5
	1	2	3	
	%			
16 to 25	10	29	45	17
26 to 35	12	26	35	28
36 to 45	12	22	36	30
46 to 55	24	32	25	19
56 to 65	40	22	31	7
Over 65	53	27	16	...

... Sample size too small to produce reliable estimates.

- 40% of Canadians over the age of 65 years have not completed primary school, compared with only 4% of Canadians aged 26 to 35 years. Similarly, 13% of Canadians aged 56 to 65 years have attended university, compared to 28% for those aged 36 to 45. However, even when educational differences are taken into account, there is still a small deterioration in skill with age.

Still, the number of seniors with weak literacy skills is significant: in Canada, there are more than 1.6 million people aged over 65 years who perform at Level 1 literacy. This means a large portion of the population is restricted in daily activities and often dependent on others for help. Poor literacy skills may lower seniors' quality of life and increase their health and safety risks, both of which have high human and social-services costs.

Literacy skills vary by occupation

The IALS findings make it clear that it is inadvisable to set a single standard of literacy for Canada. Any society can accommodate a range of literacy levels. Literacy skill requirements and performance vary significantly by occupations and industries; some occupations need high level skills and others reflect requirements for intermediate and even basic skills. For example, clerical workers appear to function well when they tested in the middle range of the literacy scale. Professionals, on the other hand, need the higher levels required to be “literate” at their jobs.

A comparison of high-demand occupations to those in decline indicates that Canadian workers in future will require high literacy skills. Industries that have experienced growth are the ones whose employees have relatively high levels of skills; those industries in decline are characterized by workers with lower skills.

Literacy must be viewed as a cause and a consequence of employment success. The workplace affords the individual an opportunity to practice literacy. Thus, an inability to find regular employment may result in the decline of a person’s skill level.

Literacy and unemployment

An unemployed person is about three times as likely to be at Level 1 compared to someone who is employed. Data from the survey also show that the higher the literacy level, the less likely an individual is to be unemployed. As well, workers with higher skills are employed more weeks during the year than those with lower skills. Data from the survey show that in Canada, there appears to be a large income penalty for those with weaker skills, and conversely a large income bonus for those workers with high skills. A broader awareness of these income differentials would alert Canadians to the benefits of having higher literacy skills.

Literacy and the need for social support

Canadian respondents to IALS were asked if they received income either through unemployment insurance or social assistance. It was found that those who receive such income support have lower literacy levels than those who do not. The social assistance recipients have markedly lower skills than unemployment insurance beneficiaries or the general population. Once again, differences in educational attainment go a long way to explaining social assistance recipients’ lower scores: 60% of this group have not completed secondary school, compared with 28% of the unemployment insurance recipients and 29% of those receiving no income support. In fact, there are only minor differences in education between Canadians receiving unemployment insurance benefits and those receiving no income support. The slightly lower scores of the unemployment insurance group may be related to fewer opportunities for literacy practice because they are not in the workforce and their tendency to have been in occupations with lower literacy demands.

The IALS data offer ample evidence that literacy programs for individuals receiving income support would meet a significant need as employment growth in occurring occupations and industries with higher skill demands. Without literacy skill training, unemployment insurance and social assistance beneficiaries will find it increasingly difficult to return to or enter the workforce.

Literacy every day

IALS concludes that literacy skills are required every day—and daily practice of reading, writing, and calculating sustains and enhances them. Consequently,

Canadians' literacy activities at work, at home, and in the community are critical in determining the population's literacy levels. The survey measured these and found that, in most cases, the workplace is richer than the home in terms of opportunities for reading.

At home, most Canadians read a newspaper at least once a week. The higher his or her literacy level, the more likely an individual is to have reading materials at home. But this doesn't mean that reading materials are absent from the homes of those with the weakest skills: almost 50% have some books at home and almost all have a dictionary. This reinforces the crucial observation that Level 1 skills does not mean the absence of literacy, but a lower level of it

Adults with lower literacy skills are more likely to spend two hours or more watching television every day. It is tempting to interpret television-watching as a *cause* of lower literacy skills, but it is just as plausible to argue that lower skills *lead* to more viewing time. Those with low skills may not be able to get the information they need from print, simply because of their low skills, and may turn to television instead.

Whether literacy skills are practised in or out of the workplace, individuals with higher literacy skills engage in literacy-related activities more frequently and in greater depth. What is emerging is a pattern, a circle of literacy that is common to literacy practice, training and education: skills contribute to practice by allowing individuals to succeed in situations where opportunities for practice are possible.

Self-assessment of literacy skills

The survey results show that only a minority of those persons with weak literacy skills, whether at work or at home, recognize a need to improve their levels. While it may seem that individuals at lower levels are overrating their skills, this may not be the case. Individuals were asked to relate their literacy skills to their job demands and IALS data show that for some individuals these demands are low. Therefore, in these situations even low skills would be satisfactory. Nevertheless, if only a minority with low skills see any need to improve their skills, that could become a concern for public policy. Without awareness of the need to improve, few Canadians will actively seek opportunities and ways to enhance their skills.

Conclusion

Literacy is central to the well-being of both individuals and nations. The data contained in IALS will permit policy makers to continue building on our strengths and, more importantly, will allow them to concentrate resources in areas that may be amenable to intervention by individuals, employers and governments.

While there has been little change in the literacy profiles in Canada in the past five years, new graduates from Canadian secondary schools since 1989 are generally more literate than the older cohorts ahead of them. However, the report also shows that literacy skills are the product of complex social and economic forces which go beyond the simple linkage with the educational system. The development, maintenance and improvement of literacy skills are strongly linked to usage. Literacy is not a skill which is learned in school and then remains consistent over the course of a lifetime. Practice contributes to skill both through more frequent use of the skill and through greater variety by providing opportunities to use and to expand the skill in new situations. At the same time, skill contributes to practice by allowing individuals to enter and succeed in situations where opportunities for practice are possible.

The IALS model provides an important framework which can help shape the public discourse about literacy. No longer can we speak about literates versus illiterates — or haves and have nots. We can now speak about levels of literacy with each level capable of supporting a broad spectrum of analysis. In fact, IALS recognizes that everyone has some level of literacy skill and proficiency. Even Level 1 is not an absence of literacy skills but is merely a lower level of skill.

If people don't use literacy skills after they have left school or college, they can lose them. The reverse is also true: if they practise literacy or receive training, people can gain skills. These findings reveal the importance of understanding how skill is lost or enhanced as well as the need for policies to encourage, protect and nurture literacy outside the formal education system.

In the end IALS demonstrates that literacy is important socially, culturally, in terms of citizenship, and economically; it rewards those who are proficient and penalizes those who are not. This fact is critical to the success of Canadians and of Canada as a nation.

Section 6.0

Transition Studies

6.3 The School-to-Work Transition in Edmonton

THE SCHOOL-TO-WORK TRANSITION IN EDMONTON, 1985 - 1992

EXECUTIVE SUMMARY

Research Design and Sample:

- Building on a longitudinal study begun in 1985, this 1992 follow-up survey of University of Alberta (n = 357) and Edmonton high school graduates (n = 404) describes seven years of education and labour market experiences, as well as the transition to adulthood, of a large sample of Alberta youth.
- Calculated as a percentage of base-line survey (1985) respondents who provided follow-up information, the 1992 survey had response rates of 67% and 45% for the university and high school samples, respectively.

Transition to Adulthood:

- By 1992, two-thirds of the university sample (whose average age was 30) were married or in common-law relationships, compared with 42% of the high school sample (average age of 25).
- At the time of graduation in 1985, virtually all of the high school sample and half of the university sample lived with their parents. By 1992, these figures had declined to 33% and 8%, respectively.
- In 1985, when graduating, 1% of high school and 5% of university respondents were raising children; by 1992 these figures had increased to 12% and 33%, respectively.

The Prolonged School-Work Transition:

- Only 7% of the high school and 24% of the university sample members made a clean break with the educational system after graduating in 1985. Alternatively, a very large majority in both samples stayed in the education system, many for a considerable length of time. This high level of educational activity indicates an extended school-work transition, but might also be seen as evidence of an emerging culture of "life-long learning".
- For most of the 1985-92 study period, the majority of high school graduates were obtaining additional education. The most common educational destination, accounting for one-third of this sample, was university. By 1991-92, however, almost two-thirds (63%) had left the education system.
- About one-third of university sample members participated in the educational system for an additional two years after 1985 (virtually all in universities), while about one in four attended for three or four years. By 1991-92, only 26% were still in the educational system.
- A sizeable minority (about one in five in the high school sample and one in three in the university sample) exited and re-entered the educational system at some point in the 1985-92 period.
- About four in ten members of the high school sample planned to return to school in the fall of 1992, expecting to obtain an average of two more years of education. Close to one-quarter of the university sample planned to return, expecting to obtain an average of 1.6 years more education.

Enrolment Patterns by Program and Faculty:

- Between 40% and 50% of academic program high school graduates went on to university, compared with only 4% to 6% of their non-academic program peers.
- Non-academic program graduates were more likely to leave the educational system completely.
- In the university sample, Education graduates, followed by Engineers, were least likely to pursue further education. Graduates from Arts or Science were most likely to remain in university. By 1991-92, 18% of Arts and 24% of Science graduates were still participating in the education system.

Full-time and Part-time Educational Activity:

- A large majority of high school graduates who continued their education between 1985-86 and 1989-90 did so full-time, but full-time education dropped to less than half of all enrolments in the two subsequent years.
- Part-time education was the clear preference for those university sample members who continued their education.
- Female and male respondents in both samples were equally likely to continue their education full-time.
- In the high school sample, academic program graduates, those whose parents were better educated, those reporting higher education plans when first surveyed in 1985, and those who had not yet begun childrearing were more likely to continue their education full-time during the seven years of the study.
- In the university sample, parental education, education plans in 1985, and childrearing in 1992 influenced full-time educational activity in the same manner. Arts and Science graduates were also more likely to continue their education full-time.

Educational Credentials:

- Compared to the average Canadian labour force participant, respondents in this study had acquired considerably more educational credentials.
- In the high school sample, 7% had completed or were still enrolled in an apprenticeship, 14% had a community college diploma, 25% had a technical or vocational school diploma, and about one-third had an undergraduate university degree by 1992.
- In the university sample, 13% had completed a masters degree, 8% had a professional degree, and 2% had doctorates.

Satisfaction with Educational Choices:

- When asked in the 1992 survey, about two-thirds of both samples said they would make the same educational choices again. This level of satisfaction is almost identical to that reported in 1989.
- Women were slightly more satisfied than men in the high school sample; the reverse was true in the university sample.

- There was a negligible difference in levels of satisfaction between academic and non-academic high school graduates, although satisfaction was positively related to number of years of full-time education completed after 1985.
- In the university sample, satisfaction varied considerably by faculty, with 75% of Education and Engineering graduates stating that they would make the same choices again, compared with 60% of Arts and 56% of Business graduates.

Assessing the Benefits of Education:

- More than two-thirds of high school respondents and more than eight in ten university respondents agreed that their education had improved their communications and reasoning skills.
- Six out of ten (59%) high school respondents agreed that their education had improved their career prospects, while half agreed that it had been useful in helping them find a job. However, over 80% of university respondents agreed with both these statements about the labour market value of their education.
- In the high school sample, academic program graduates provided more positive assessments of the value of their education, as did those who had completed more years of full-time post-secondary education.
- In the university sample, no faculty stood out in providing uniformly highly positive assessments. Arts graduates were most positive about improvements in their communication skills; Engineering graduates were most positive when it came to reasoning skills; Education and Science graduates perceived the greatest benefits in terms of finding a job.

Patterns of School and Work:

- Over the seven years of the study, there was a steady decline in average number of months in full-time education for both samples, and a corresponding increase in full-time employment.
- Part-time work also declined over the study period, as did average number of months unemployed.
- Of those respondents who had completed no full-time education over the entire study period, high school graduates reported an average of 8.5 months of full-time work in 1991-92, compared with 10.1 months for university graduates.

Unemployment Experiences:

- In the year following graduation in 1985, about three in ten members of both samples reported at least one period of unemployment. By 1989-90, this figure had dropped to below 15% for university graduates and to around 20% for high school graduates.
- About 5% of university graduates were unemployed when contacted in 1986, 1987, 1989 and 1992. The unemployment rate in the high school sample hovered around 10% for the first three follow-up surveys, but then dropped to 7% in 1992.
- In both samples, unemployment spells became progressively shorter by the end of the 1980s, then increased in the 1990-92 recession.

Changing Occupational Distributions:

- Of the high school respondents who were employed prior to graduating in 1985, 90% of females and 82% of males were in clerical, sales or service occupations. By 1992, high school sample members were more widely dispersed across the occupational structure, with only 50% of women and 36% of men employed in clerical, sales and service occupations.
- By 1992, 46% of the women in the high school sample and 36% of the men were in managerial or professional jobs. Women were also concentrated in clerical jobs (31%).
- In the university sample, 60% of the women and 59% of the men employed prior to graduating in 1985 were in clerical, sales and service jobs. Within a year of graduating most had moved out of this student labour market, with less than one-quarter reporting such jobs.
- By 1992, 64% of the females in the university sample and 56% of the males were in professional occupations, while 21% and 28%, respectively, were in managerial occupations. But one in eight (mainly women) were still employed in clerical, sales and service jobs.

Changing Industrial Distributions:

- In the high school sample, there was steady movement out of lower-tier service industries between 1987 and 1992. Still, in 1992 one-quarter of women and close to one-third of the men were working in retail and consumer service industries (the bottom end of the labour market).
- By 1987, most of the university sample members had moved out of lower tier service jobs. In 1992, only 9% were employed in retail and consumer service industries.

Non-Standard Work:

- Self-employment among sample members was not very common. In 1992, 14% of the high school sample and 17% of the university sample reported having been self-employed at some point in the preceding 36 months. By comparison, 14% of the Canadian labour force is self-employed.
- Over the study period participation in government-sponsored employment programs declined. By 1992, only 7% of the high school sample and 2% of the university sample reported participating in such programs during the previous 36 months.
- At the time of the 1992 survey, 13% of high school respondents and 10% of university respondents were employed part-time. The comparable figure for the Canadian labour force is 16%.
- Involuntary part-time employment was quite common. In 1992, 51% of high school respondents and 45% of university respondents in part-time jobs said they would prefer a full-time job.
- Over the course of the study, gender differences in part-time employment began to appear, as some young women began to balance work and childrearing responsibilities by working part-time.

- Looking at those who were not full-time students during 1991-92, 12% of employed high school respondents and 8% of employed university respondents were in temporary jobs in 1992. This represents a slight drop since 1989.

Shiftwork:

- One in eight (12%) of university sample members and 35% of high school sample members reported working shift schedules when surveyed in 1992. This compares with 30% of Canadian workers who are shiftworkers.
- Shift work was most common in sales and service occupations. Only 7% of university sample members in managerial and professional jobs reported working shifts, compared with 29% of high school respondents in this occupational group.

Occupational Attainment and Education:

- Only one in ten high school graduates who had not returned to school full-time at any point between 1985 and 1992 had obtained a managerial or professional job. Alternatively, about two-thirds of high school graduates reporting three or more additional years of full-time education were employed in a managerial or professional job in 1992.
- While university sample members with additional full-time education (compared with those who went directly into the labour market) were somewhat more likely to have a managerial or professional job in 1992, over 80% of all university respondents reported such jobs.

Seniority, Pay and Benefits:

- In 1992, employed high school sample members had been in their current job for an average of 24 months, compared with an average seniority of 36 months for university respondents.
- Gross average weekly income for currently employed respondents (June 1992) was \$500 for high school sample members and \$750 for the university sample.
- University sample members in managerial and professional occupations and in sales and service occupations earned an average of about \$200 more per week than high school sample members in these occupational categories.
- In both samples, males earned significantly more than females, largely due to occupational gender segregation and the higher proportions of women in part-time jobs.
- Employed high school and university sample members earned more, on average, than typical hourly and salaried employees in Alberta.
- By 1992, employed members of the high school sample were as likely as members of the Canadian labour force as a whole to report employer-sponsored pension and dental plans, medical insurance, and maternity leave. In contrast, the vast majority of university sample members were receiving these benefits.

Evaluations of Job Rewards:

- About two-thirds of the university respondents assessed their pay, benefits, and job security as "good", compared with about one-half of the high school sample. But less than one in three in both groups evaluated their promotion chances as "good".

- Almost half of the employed high school respondents agreed that they had freedom to make decisions in their job. More than 60% agreed that they could use their skills and abilities on their job, that their work was interesting, and that their job gave them a feeling of accomplishment.
- University respondents were, on average, significantly more positive on all four of these assessments of intrinsic job rewards.

Job Satisfaction:

- Over half (56%) of employed high school respondents and 68% of employed university respondents stated that they were satisfied with their job. Gender differences were non-significant.
- Job satisfaction was highest among respondents in professional and managerial jobs, and lowest for those in clerical jobs.
- Just over one-third (37%) of employed high school respondents and only one-half (52%) of employed university respondents agreed that they were in the kind of job they expected to have at this stage in their life.
- In the university sample, 88% of Education and 84% of Engineering graduates were satisfied with their job, while only 46% of Arts graduates said they were satisfied.

Relationship Between Current Job and Field of Study:

- In the high school sample, 65% reported that their current job was related to their field of study in terms of the specific skills learned, and 79% perceived a relationship in terms of general skills. For both assessments, the proportions agreeing had increased since 1989.
- In the university sample, 76% reported that their current job was related to their field of study in terms of the specific skills learned, and 91% perceived a relationship in terms of general skills. These evaluations had changed very little since 1989.
- In both samples, managers and professionals reported a good match between their skills and their job requirements. Clerical, sales and service workers were least likely to use the specific or the general skills acquired through their education on the job.

Subjective Underemployment:

- One in three (31%) high school respondents and 20% of university respondents felt overqualified for their job, given their experience, education and training. This compares to 23% of the Canadian labour force as a whole.
- In the university sample, 37% of Arts graduates felt overqualified, compared with less than one in five graduates from Education, Engineering and Science.
- In both samples, perceived underemployment had declined since the 1989 survey.
- About four in ten members of both samples concluded that they were underpaid, given their experience, education and training.

Job-Related Education:

- Among respondents who participated in the formal education system between 1989 and 1992 (63% of the high school and 47% of the university samples), over 80% did so for job or career-related reasons.
- The vast majority who took courses or programs for job/career reasons were attempting to establish themselves in their chosen line of work. Very few had participated in the formal education system in order to do their current job better.
- Only about one in six reporting job or career-related formal education stated that their employer had required them to obtain this education. About one in five had received assistance from their employer (time off or financial assistance). Women were somewhat less likely to benefit from such employer initiatives.

Informal and Formal On-The-Job Training:

- Six out of ten (61%) high school respondents and 54% of university sample members reported receiving some informal training (training needed to do one's job provided by co-workers or supervisors) in the previous year.
- Comparable figures for formal training (employer-sponsored structured training programs) were 37% and 46%, respectively.
- Compared with national studies, these findings suggest a fairly high level of formal on-the-job training, which is not surprising given that better educated workers (such as many of our respondents) generally are the ones who receive training.
- About two-thirds in both samples agreed that they received high quality formal training.
- A small majority of those receiving formal training agreed that they needed it to do their job effectively, that it would help them to get ahead with their present employer, and that it helped them to meet their career objectives.
- As observed in other studies of training, better-educated respondents, those in higher-status occupations, employees of larger work organizations, and men were more likely to receive training. In addition, men reported significantly more hours of formal and informal training.

Education, Training, and Skills Acquisition

- While occupational/professional skills and knowledge were more often acquired through the formal education system, job/employer specific information was generally obtained via informal training.
- General analytic skills and more general knowledge were more often enhanced via the formal education system. Communication skills were more likely to be sharpened in the formal education system or through formal on-the-job training.
- Management and interpersonal skills tended to be acquired via formal or informal training. Members of the university sample were more likely to comment on improved management skills, while high school sample members more often mentioned improved interpersonal skills.
- However, this survey also shows considerable overlap across formal education, informal training, and formal training, in terms of the types of skills and knowledge acquired.

Section 8.0

Educational Compendia

8.1 Education in Canada

HIGHLIGHTS

Enrolment

- 1992-93 marked the seventh consecutive year in which elementary-secondary enrolment increased, following 15 years of decline. The enrolment of about 5.3 million students represented a gain of nearly 76,000 over the previous year, but still substantially below the all-time high of 5.8 million attained in 1970-71.
- In 1991-92, 275,900 trainees were enrolled in trade/vocational programs in public trade schools and in community colleges, 15,000 more than in 1990-91. About 45% of them were in pre-vocational programs; 28% in pre-employment programs, 23% in programs for registered apprentices; and the remainder (4%) in skills upgrading.
- For the third consecutive year, full-time college enrolment reached a new record high, increasing from 349,000 in 1991-92 to 362,000 in 1992-93.
- Full-time university enrolment rose annually during the eighties, reaching 569,000 in 1992-93. This was a 33% growth from 1982-83.
- In 1992-93, 321,000 students were enrolled part-time in universities, 20% more than ten years earlier.
- In 1992-93, 90,200 foreign students studied in Canada, compared with 64,800 in 1982-83.

Graduates

- The number of secondary school graduates for 1991-92 increased to 273,100, an increase of 12,400 (4.8%) over the previous year.
- For the last decade, more community college diplomas have been awarded to women than to men, and the women's share is increasing. In 1991-92, nearly 85,300 community college diplomas were awarded, 13,500 more than in 1981-82. Fifty-nine percent of the 1991-92 graduates were women, compared with 56% in the 1981-82 academic year.
- In 1992, 120,700 bachelor's and first professional degrees were granted, 33,600 more than ten years before. More than half these degrees (57%) were granted to women, compared with 51% in 1982.

FAITS SAILLANTS

Effectifs

- Pour la septième année consécutive, après avoir accusé une baisse pendant 15 ans, les effectifs au niveau primaire-secondaire ont enregistré une augmentation en 1992-93, pour s'établir à près de 5.3 millions. Bien que ce nombre représente un gain d'environ 76,000 étudiants par rapport à l'année précédente, il est encore bien inférieur à celui de 1970-71 où il avait atteint le chiffre record de 5.8 millions.
- En 1991-92, 275,900 stagiaires étaient inscrits à des programmes de formation professionnelle au niveau des métiers dans des écoles de métiers publiques et dans des collèges communautaires, soit 15,000 de plus qu'en 1990-91. Environ 45% étaient inscrits à des programmes en vue d'une formation professionnelle, 30% à des programmes de préparation à l'emploi, 23% à des programmes pour les apprentis enregistrés, et le reste à des programmes de perfectionnement spécialisé.
- Les effectifs à plein temps au niveau collégial ont atteint un nouveau sommet, pour la troisième année consécutive, passant de 349,000 en 1991-92 à 362,000 en 1992-93.
- Les effectifs à plein temps au niveau universitaire ont augmenté annuellement au cours des années 80, atteignant 569,000 en 1992-93, soit une augmentation de 33% par rapport à 1982-83.
- En 1992-93, 321,000 étudiants étaient inscrits à temps partiel dans les universités, soit 20% de plus qu'il y a 10 ans.
- En 1992-93, le Canada comptait 90,200 étudiants étrangers, comparativement à 64,800 en 1982-83.

Diplômés

- Le nombre de diplômés des écoles secondaires a augmenté à 273,100 en 1991-92, soit une augmentation de 12,400 (4.8%) par rapport à l'année précédente.
- Pendant cette dernière décennie, on a décerné plus de diplômes des collèges communautaires aux femmes qu'aux hommes et la part des femmes s'accroît. En 1991-92, près de 85,300 diplômes de collèges communautaires ont été décernés, soit 13,500 de plus qu'en 1981-82. Parmi les diplômés de 1991-92, 59% étaient des femmes comparativement à 56% pendant l'année scolaire 1981-82.
- En 1992, 120,700 baccalauréats et premiers grades professionnels ont été décernés, soit 33,600 de plus qu'il y a 10 ans. Plus de la moitié de ces grades (57%) ont été décernés à des femmes, comparativement à 51% en 1982.

- In 1992, 19,400 master's degrees were awarded, an increase of 6,300 over 1982. Forty-eight percent of these degrees were earned by women, up from 39% a decade earlier.
- In 1992, 3,100 doctorates were granted, 1,400 more than ten years earlier. Women received 32% of them, versus 25% in 1982.

Teachers

- The number of elementary-secondary teachers decreased from the all-time high of 284,900 in 1976-77 to 267,600 in 1985-86. In 1986-87, their numbers started to grow, reaching 303,100 in 1991-92, then dropping to 298,200 in 1992-93.
- In 1992-93, full-time university teachers numbered 37,300, a 9% increase over 1982-83. Women made up about 21% of the faculty, up from 16% ten years earlier.

Expenditures

- Spending on education in current dollars rose steadily to \$53.1 billion in 1991-92 up 109% from 1981-82. By comparison, the Consumer Price Index increased by 67% during the same period.
- In 1991, the cost of education per capita of population was \$1,888, 85% more than ten years earlier, and for each person in the labour force, it was \$3,859, an 81% increase over the same period.

Educational attainment

- Between the Censuses of 1976 and 1991, the median number of years of formal schooling of Canada's adult population rose from 11.3 to 12.5.
- By 1992, the proportion of the adult population with postsecondary credentials stood at an estimated 34.1%. About 13.3% of the adult male population were degree-holders, compared with 10.4% of women. Approximately the same proportion of men (22.5%) and women (22.1%) had certificates or diplomas.

Labour force

For both men and women, higher levels of education are associated with rising labour force participation and declining rates of unemployment. Unemployment in 1992 was the lowest among university degree-holders and highest among non-secondary graduates.

- En 1992, 19,400 maîtrises ont été décernées, soit une hausse de 6,300 par rapport à 1982. Au total, 48% de ces diplômes ont été obtenus par des femmes, soit une hausse par rapport à 39% dix ans plus tôt.
- En 1992, on a décerné 3,100 doctorats, soit une hausse de 1,400 par rapport à dix ans plus tôt. Les femmes en ont reçu 32%, soit une hausse par rapport à 25% en 1982.

Enseignants

- Le nombre d'enseignants des écoles primaires-secondaires a diminué par rapport à 1976-77 où il a atteint le chiffre record de 284,900, pour s'établir à 267,600 en 1985-86. En 1986-87, leur nombre a commencé à s'accroître, atteignant 303,100 en 1991-92. En 1992-93 le nombre d'enseignants a diminué à 298,200.
- En 1992-93, les enseignants à plein temps des universités étaient au nombre de 37,300, soit une progression de 9% par rapport à 1982-83. Les femmes représentaient environ 21% du personnel enseignant, soit une hausse par rapport à 16% il y a dix ans.

Dépenses

- Les dépenses au chapitre de l'éducation, en dollars courants, ont augmenté de manière constante pour atteindre \$53.1 milliards en 1991-92, soit 109% de plus qu'en 1981-82. À titre de comparaison, l'indice des prix à la consommation a augmenté de 67% au cours de la même période.
- En 1991, le coût de l'éducation s'est élevé à \$1,888 par habitant, soit 85% de plus que dix années auparavant, et à \$3,859 par personne active, soit une hausse de 81% par rapport à la même période.

Niveau d'instruction

- Entre les recensements de 1976 et de 1991, le nombre moyen d'années d'instruction formelle de la population adulte au Canada est passée de 11.3 à 12.5.
- En 1992, la proportion de la population adulte ayant des titres scolaires du niveau postsecondaire a été estimée à 34.1%. Environ 13.3% des hommes adultes étaient titulaires de grades universitaires, comparativement à 10.4% des femmes. Approximativement la même proportion des hommes (22.5%) et des femmes (22.1%) possédaient des certificats ou diplômes.

Population active

- Chez les hommes comme chez les femmes, des niveaux supérieurs d'instruction sont associés à des taux d'activité croissants et à des taux de chômage décroissants. En 1992, le taux de chômage était le plus faible chez les titulaires de grades universitaires et le plus élevé chez les personnes n'ayant pas complétées des études secondaires.

8.2 Alberta Children and Youth: Trends and Issues

Highlights

Demographic Profile

- ◆ Youth age 0-19 as a percentage of Alberta's population (29.9% in 1994) is declining. In the future, youth may face increased competition for scarce public resources as service needs for an aging population increase. Under low, medium and high projections respectively, the youth population would constitute 22.6%, 24.6% or 26.7% of the population by the year 2016.
- ◆ Annual interprovincial migration of 15-19 year-olds to Alberta has been consistently positive, even when total migration was negative. Large inflows of 15-19 year-olds from other provinces who don't enter the school system may skew educational indicators based on a percentage of the population (e.g., participation rates, graduation rates).
- ◆ About three to four of every 100 school age Albertans (age 5-19) arrive from another province or country each year. More than half of school age Albertans in 1991 had changed their residence in the last five years (nearly half of these moves were within the province).
- ◆ Total annual births in Alberta declined from 43,927 in 1984 to 38,050 in 1994. Fertility rates, which bottomed out in the mid-1980s, have since risen slightly in Alberta.
- ◆ Mortality rates for Alberta youth are declining. The leading causes of death for 0-19 year-olds are birth trauma and congenital anomalies (for infants), and motor vehicle accidents and suicide (for teens).
- ◆ Aboriginal children account for 9.8% of all children age 0-15 in Alberta, compared to 6.4% for all of Canada.
- ◆ The major sources of immigrants to Alberta in 1990 were Asia/Pacific (51%), Europe (23%) and Africa/Middle East (12%). In 1990, about 70% of Alberta immigrants age 0-19 did not speak English.

Childhood

- ◆ In 1991, 81% of Albertans age 0-19 lived in traditional two-parent families. The percentage of lone parent families in Alberta (13.9%) is just below the national average (14.2%). About seven percent of Canadian families include at least one stepchild.
- ◆ In 1991, Albertans have the second highest average family income in Canada. In constant dollars, Canada's average family income declined in the early 1980s, rose in the late 1980s, and declined again in the early 1990s.
- ◆ Between 1970 and 1990, the percentage of two-parent families in Canada with children under age 19 that had both parents working increased from 30% to 70%.

Shrinking youth population

Mobility

Births/fertility

Mortality

Aboriginal children

Immigrants

Family characteristics

- ◆ The number of licensed child care spaces in Alberta increased from about 16,000 in 1981 to more than 51,000 in 1993.
- ◆ In 1993, the rate of child poverty in Alberta was 19.8%, slightly below the Canadian average and down from 23.3% in 1992.
- ◆ The incidence of missing children is slightly lower for Alberta (25 per 100,000) than for Canada as a whole (28 per 100,000). Parental abductions account for less than one percent missing children.
- ◆ In 1991, about 7.2% of Canadians age 0-19 had some form of disability. Of all child disabilities, 85% are classified as mild, 11% as moderate, and 4% as severe. Learning disabilities are the most common disability among children. Boys are twice as likely to have a learning disability as girls.

Adolescence

- ◆ In a 1992 survey, Canadian youth (age 15-19) reported that what they wanted most out of life were freedom, being loved, having choices and success in what you do.
- ◆ Today's teens have experienced a quality of life unmatched in Canadian history. Most expect to continue to do so, and to improve on the experiences of their parents.
- ◆ Today's teens are the best informed in Canadian history, largely due to increased exposure to television, technology and travel.
- ◆ Today's teens are more likely than those of the early 1980s to see problems. The concerns cited most often in a 1992 survey were AIDS, the environment, child abuse, drugs and teen suicide.
- ◆ A primary concern of Edmonton and area teens is that getting an education no longer ensures success in an uncertain future. Other concerns include increasing social and economic pressures on families and increasing parental pressure to achieve, especially in school.
- ◆ Among Canadian teens age 15-19, males spend substantially more time than females at television viewing and active sports, while females spend substantially more time than males at unpaid work, and education and related activities.
- ◆ Alberta 15-19 year-olds consistently experience high labour force participation rates and low unemployment rates, relative to most other provinces.
- ◆ After increasing steadily for decades, teen pregnancies have been falling since 1991 in Alberta. Since 1989, the incidence of sexually transmitted diseases among Alberta teens has also declined.

Child care

Child poverty

Missing children

Children with disabilities

*Values, attitudes
and issues.*

Time use patterns

Labour force participation

Teen pregnancies

Youth crime

Substance abuse

Life prospects

School-work transitions

Social assistance

Educational attainment and life prospects

- ◆ Males account for about 80% of all youth crimes each year in Alberta; however, the proportion committed by females is gradually increasing. As a proportion of all youth crimes in Canada, violent crimes have increased from 9% in 1986 to 17% in 1993.
- ◆ A 1993 survey found that annual rates of substance use for Alberta teens were: alcohol - 64%, tobacco - 40%, hashish/ marijuana - 16%, hallucinogens - 9% and amphetamines - 7%. Teens' peer and social relationships were significantly related to their substance use.
- ◆ Current demographic and economic conditions have combined to limit the life prospects of young people. Young people are having difficulty obtaining career oriented jobs, and more are living with their parents longer and/or delaying family formation.
- ◆ School-work transitions are becoming more a process than an event, having many components and lengthy timelines. Students are staying in school longer, often mixing studies with a job. School-work transitions are now found throughout life, not just among youth.
- ◆ From July, 1993 to January, 1995, caseloads of Alberta teens receiving social assistance to live independently decreased from 6,418 to 2,208.
- ◆ People with higher education levels fare much better in the workplace than those with lower levels of education. However, the proportion of well educated people who are unemployed or living in poverty is increasing.

8.3 Tracking the Trends

TABLE OF CONTENTS

	Page
INTRODUCTION	7
PART ONE – MAJOR SOCIAL AND ECONOMIC TRENDS	
POPULATION	
Proportion of young people in age groups 1-24 (9 areas)	11
Young people by age/sex (Edmonton)	12
Population projections - age groups 10-24 (Edmonton)	12
Population projections in all age groups (Edmonton)	13
Young people – age group as % of total population (9 areas)	13
Population aged 15-24 by school attendance (9 areas)	14
Divorce rate (Alberta/Canada)	14
Out of wedlock births as % of all resident births (Edmonton)	15
Single parent families as % of all families (Edmonton/Canada)	15
Immigrants from outside Canada 1986-1991 as % of total population (9 areas)	16
EMPLOYMENT AND INCOME	
Unemployment rate – labour force aged 15 and over (Edmonton)	16
Unemployment rate – 15 to 24 compared to those aged 25 and over (9 areas)	17
Average hours worked per week (all/15-24 year olds)	17
Average family income (9 areas)	18
Persons in low income families as % of total population (9 areas)	18
Home ownership (9 areas)	19
Supports for Independence rates compared to Statistics Canada	
Low Income Cut-off levels	19
Individuals using the Edmonton Food Bank – monthly averages by year	20
YOUTH AND CRIME	
Violent crimes	21
Property crimes	21
SELECTED STATISTICS	22

TABLE OF CONTENTS

PART TWO – TRENDS AND IMPLICATIONS FOR YOUTH

INTRODUCTION	25
WHAT YOUTH ARE SAYING	
Questionnaire:	
Closed Response Questions	26
Open-Ended Questions	31
TRENDS AND IMPLICATIONS	
Focus Groups	51
COMPARISONS: 1989 EDITION FINDINGS TO 1994 FINDINGS	65
LIST OF ORGANIZATIONS AND AGENCIES PROVIDING PROGRAMS AND SERVICES FOR YOUTH AND THE TYPE OF PROGRAM SUPPORT OFFERED	69
APPENDICES:	75
1 List of Participants	77
2 Demographic Profile of Questionnaire Respondents	80
3 Closed Response Questions	82
4 Means and Standard Deviations	83

CONTENTS

1. Introduction	1
2. Theoretical Framework	5
3. Methodology	10
4. Data Collection	15
5. Results	20
6. Discussion	25
7. Conclusion	30
8. References	35
9. Appendix	40
10. Glossary	45
11. Index	50

8.4 Guide to Data on Elementary and Secondary Education in Canada

TABLE OF CONTENTS

Sources	Pages
Education, Culture and Tourism Division - Statistics Canada	
1. Survey on School Boards based on the Uniform Financial System	2
2. Survey of Financial Statistics of Private Schools	4
3. Statistics on Characteristics of Teachers in Public Schools	6
4. Survey on School Enrolment and Graduates	8
5. Survey on Minority and Second Language Education	10
6. School Leavers Survey (SLS)	12
7. Survey of Federal Government Expenditures on Education	16
8. Education Price Index (EPI)	18
9. Adult Education and Training Survey (AETS)	20
10. Statistics on International Students	22
Census Operations Division	
11. Census of Population	24
Labour and Household Surveys Branch	
12. Labour Force Survey (LFS)	26
13. Survey of Labour and Income Dynamics (SLID)	28
14. Survey of Employment, Payrolls and Hours (SEPH)	31
15. Survey of Literacy Skills Used in Daily Activities (LSUDA).....	33
16. Labour Market Activity Survey (LMAS)	35
17. Survey of Consumer Finances (SCF)	37
18. Survey of Family Expenditures (FAMEX)	39
Housing, Family and Social Statistics Division	
19. General Social Survey (GSS, Cycles 4 and 9)	41

TABLE OF CONTENTS - Concluded

Sources	Pages
Post-Censal Surveys Program	
20. Health and Activity Limitation Survey (HALS) 1991	43
21. Aboriginal Peoples Survey (APS)	45
Public Institutions Division	
22. Public Sector Employment and Payroll	47
Investment and Capital Stock Division	
23. Building Permits Survey	50
Transportation Division	
24. Passenger Bus Survey	52
Human Resources Development Canada and Statistics Canada	
25. National Longitudinal Survey of Children (NLSC)	54
Revenue Canada Taxation	
26. Taxation Statistics	58
Table	
Main Data Sources on Elementary-Secondary Education, by Type of Data Collected	60

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